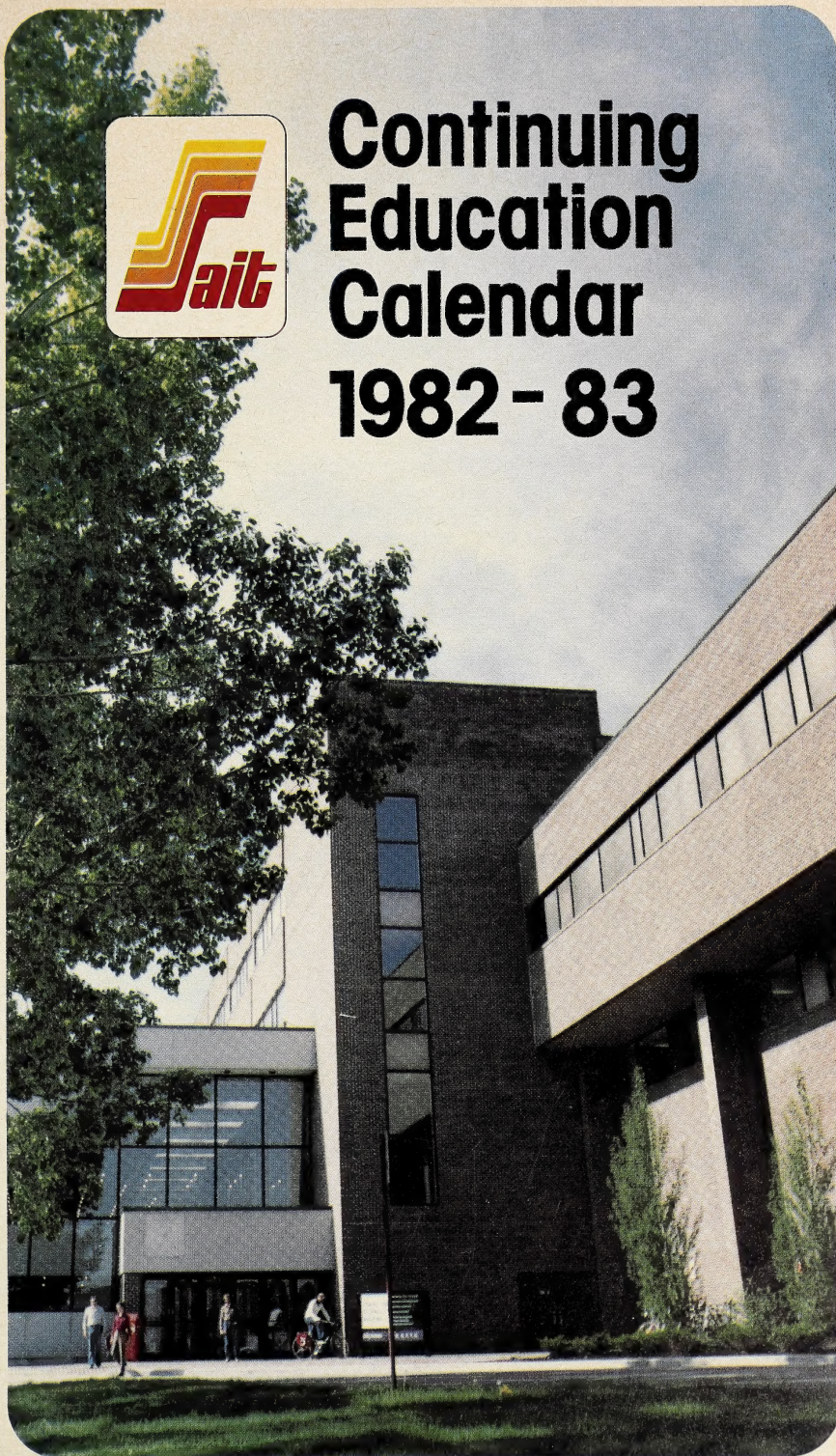


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Continuing Education Calendar 1982 - 83



Southern
Alberta
Institute of
Technology



7309671

Calendar of Events 1982

JUNE 1 - 4	- First week of registration for fall session.
July 1	- Dominion Day, Institute closed.
August 2	- Civic Holiday, Institute closed.
August 30	- Continuing Education Office open evenings.
September 6	- Labour Day, Institute closed.
September 7	- Classes commence on dates indicated for Fall session.
October 11	- Thanksgiving Day, Institute closed.
NOVEMBER 1 - 4	- First week of registration for winter session.
November 11	- Remembrance Day, Institute closed.
December 20 to January 4	- Continuing Education Office closed evenings for the Christmas break.
December 16	- Last day of class for Fall session.

1983

January 3	- Institute closed.
January 4	- Classes commence on dates indicated for Winter session. - Continuing Education Office opening evenings.
April 1 to April 4	- Easter, No classes held on or between these dates.
March 14 to August 26	- Continuing Education Office closed evenings.
May 23	- Victoria Day, Institute closed.

FOR INFORMATION AND APPLICATION FORMS, WRITE

Southern Alberta Institute of Technology,
Continuing Education,
1301 - 16 Avenue N.W.,
Calgary, Alberta. T2M 0L4

OR TELEPHONE:
Continuing Education Information - 284-8881

LOCATED
Main Floor, Main Building

**REGISTRATION FOR FALL COURSES BEGINS JUNE 1, 1982 TO JUNE 4, 1982, 9:00 A.M. - 4:00 P.M., AND
RESUMES JUNE 7, 1982, 8:00 A.M. - 4:30 P.M., UNTIL COURSES FILL OR START IN SEPTEMBER.**

CANADIAN
e1
JUN 04 1982

JUNE 1, 1982

Communication Arts Department
Culinary Arts Department
Drafting Department
Structures Department
Power Engineering

JUNE 2, 1982

Aero Mechanical Department
Aeronautical Department
Alberta College of Art
Metals Department
Petroleum Department
Photography Department

JUNE 3, 1982

Automotive/Diesel Department
Business Education Department
Chemistry Department
Clothing Department
Electronics Department
Secretarial Arts Department

JUNE 4, 1982

Computer - Math/Physics Department
Electrical Department
Medical Science Department
CAPP - Petroleum Production Accounting

Additional registration location from June 1 - 11 only:
**Northland Village Mall, 511 Northland Drive N.W., Calgary, Alberta T2L 2J8;
Altadore Elementary School, 4506 - 16th Street S.W., Calgary, Alberta;
Alberta Vocational Centre, 332 - 6th Avenue (Auditorium), Calgary, Alberta;
S.A.I.T.-2 Campus, 2015 Centre Avenue East, Calgary, Alberta;**

**REGISTRATION FOR WINTER COURSES BEGINS NOV. 1, 1982 TO NOV. 4, 1982, 8:00 A.M. - 8:00 P.M. AND
RESUMES NOV. 5, 1982, 8:00 A.M. - 8:00 P.M., UNTIL COURSES FILL OR START IN JANUARY.**

NOV. 1, 1982

Communication Arts Department
Culinary Arts Department
Drafting Department
Structures Department
Power Engineering

NOV. 2, 1982

Aero Mechanical Department
Aeronautical Department
Alberta College of Art
Metals Department
Petroleum Department
Photography Department

NOV. 3, 1982

Automotive/Diesel Department
Business Education Department
Chemistry Department
Clothing Department
Electronics Department
Secretarial Arts Department

NOV. 4, 1982

Computer - Math/Physics Department
Electrical Department
Medical Science Department
CAPP - Petroleum Production Accounting

Additional registration locations from November 1 - 12 only:
**Northland Village Mall, 511 Northland Drive N.W., Calgary, Alberta T2L 2J8;
Altadore Elementary School, 4506 - 16th Street S.W., Calgary, Alberta;
Alberta Vocational Centre, 332 - 6th Avenue (Auditorium), Calgary, Alberta;
S.A.I.T.-2 Campus, 2015 Centre Avenue East, Calgary, Alberta;**



**CONTINUING EDUCATION SUBJECTS
1982-83**

CALGARY

**UNDER THE DIRECTION OF THE ALBERTA
DEPARTMENT OF ADVANCED EDUCATION AND MANPOWER
Financially assisted by the Government of Canada**

HON. MR. J.D. HORSMAN Minister of Advanced Education and Manpower
DR. H. KOLESAR Deputy Minister
F.C. JORGENSEN President
R.H. JEWISON Director of Continuing Education

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WELDING (See Metals Department)

AERONAUTICAL MECHANICAL DEPARTMENT

XMET-622 FLUID POWER

A theoretical program encompassing hydraulics, pneumatics and fluidics with laboratory applications to practice.

NOTE: Daytime lectures of 3 hours' duration will be held if times can be arranged. Otherwise evening classes would be held.

The total offering would be broken into two or perhaps three, 36 hour blocks, one or two days per week depending on available scheduling.

Applications will be accepted without fees. Once we have 8 applications we will set up a course.

XMET-530 MECHANICAL DESIGN 30 Weeks

Prerequisite: *See Below Thursday, 6:30 - 9:30 p.m.

Fee: \$167.00

This course is directed towards sales and trades people who want a deeper understanding on mechanical component design. The presentation will be both analytical and descriptive and will include the following topics: Imperial & SI units, axial stress, torsional stress, bending stress, fatigue stress and stress concentrations, mechanical fasteners, shaft design, keys, couplings, columns, springs, roller bearings, spur gears, belt and chain drives, and other topics of interest if time permits. Tension, torsion, and hardness demonstrations will be given.

Credit in this course **will not** be applicable to the Mechanical Engineering Technology program.

***A basic knowledge of mathematics is required.**

Commencement date - Thursday, September 16

XMET-521 INDUSTRIAL HYDRAULICS 20 Weeks

Prerequisite: Grade 10 Monday, 7 - 10 p.m.
or equivalent

Fee: \$113.00

This is a practical course presenting theory supplemented by some laboratory work and is aimed at mechanics, sales people, and installation personnel. It covers the basic principles and applications of hydraulic pumps, motors, fluids, valves, auxiliaries and piping. Practical applications are in the field of presses, excavating equipment, machine tools, elevators, logic devices, and similar equipment.

The textbook used in this course costs approximately \$25.00.

Commencement date - Monday, September 13

XMET-221 FLUID MECHANICS 16 Weeks

Prerequisite: *See Below Tuesday, 7 - 10 p.m.

Fee: \$91.00

This course is designed to provide the student with a knowledge of the basic principles governing fluid flow in pipes, with direct application to fluid power systems.

Fluids: definition, characteristics and properties. Static fluids: pressure variation and forces developed. Buoyancy: buoyant forces and lines of action. Energy relationships for fluids flowing in closed circuits. Major and minor losses in pipe flow. Flow measuring devices in closed pipes. Orifices and short tubes. Forces produced by fluids in motion: impulse and momentum. Fluid Power: pumps, control systems and actuators.

Several laboratory exercises will illustrate the theoretical material.

***The potential student should have a good knowledge of high school mathematics and physics.**

NOTE: A successful grade in this course will assure credit in Mechanical Engineering Technology, MET-221.

Textbook cost approximately \$25.00.

Commencement date - Tuesday, January 11, 1983

XMET-411 ENGINEERING NUMERICAL 12 Weeks ANALYSIS

Prerequisite: XCT-100 and
XCALC-002
and 003

Tuesday and Thursday
7 - 9 p.m.

Fee: \$91.00

The student will obtain instruction on the use of a computer terminal and its application in the solution of engineering problems. The following numerical methods will be covered with assignments illustrating engineering applications of each method: root of polynomials, simultaneous equation, interpolation and extrapolation, numerical differentiation and integration, curvefitting, regression, and optimization. Classes will consist of a two hour theory session followed by a two hour lab. Course emphasis is not on the programming aspect but on the use of available subroutines and packages in the solution of engineering problems.

NOTE: A successful grade in this course will assure credit in Mechanical Engineering Technology, METS-411.

Commencement date - Tuesday, September 14

XMET-611 PIPELINE ENGINEERING 16 Weeks MATERIALS AND DESIGN CONSIDERATIONS

Prerequisite: None

Tuesday, 7 - 10 p.m.

Fee: \$91.00

Designed for technical and sales persons involved with the pipeline industry. This course deals with the following topics, emphasis depending upon requirements of the class participants:

Steelmaking and mill processes in pipe manufacture; field processes in pipeline construction, welding; manufacturing and construction processes; defects in pipeline construction; detection of defects; mechanical testing and metallurgical examinations; corrosion control; pipeline structural stress analysis.

Commencement date - Tuesday, September 14

OFFICE HOURS

August 30, 1982 to March 10, 1983

Monday to Thursday - 8:00 a.m. to 8:00 p.m.

Friday - 8:00 a.m. to 4:30 p.m.

December 16, 1982 to January 3, 1983

March 14, 1983 to August 29, 1983

Monday to Friday - 8:00 a.m. to 4:30 p.m.

REGISTRATION FOR THE ABOVE COURSES

FALL - June 2, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.

WINTER - November 2, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.

Check for registration location in your area.

AIRCRAFT TECHNOLOGY PROGRAM

XAMT-050 AIRCRAFT ELECTRICAL 6 Weeks **FUNDAMENTALS**

Prerequisite: None Thursday, 7 - 10 p.m.

Fee: \$54.00

This course covers the fundamental theory, operation, and maintenance of electrical equipment in aircraft. It is intended for aircraft maintenance engineers, aircraft owners and others desiring a basic knowledge of the subject.

Among other items the following will be covered: elementary calculations, safety precautions, batteries, aircraft wiring, power systems and distribution, motors, heating systems and electrical instruments.

Commencement date - Thursday, November 4

XAMT-060 BASIC GAS TURBINE ENGINE 5 Weeks **PRINCIPLES I**

Prerequisite: *See Below Tuesday and Thursday
7 - 10 p.m.

Fee: \$86.00

With the advent of jet-propelled and other high-speed aircraft, the gas turbine power-plant has become increasingly important in all phases of aviation.

The purpose of the Basic Gas Turbine Engine Principles I and II intensive course is to supply the necessary theoretical knowledge, which, when combined with an adequate practical background, will prepare a student to apply to write the Gas Turbine portion of the Transport Canada Maintenance Engineer's License.

No attempt will be made to give detailed information about specific makes or models of engines, except when the information would enhance understanding of the subject.

There will be an examination at the conclusion of each course and the pass mark is 70%.

***All applicants must possess a good command of the English language, both written and spoken.**

***Applicants should supply proof of experience in the aircraft industry, sufficient to satisfy Transport Canada requirements.**

Commencement date - Tuesday, September 28

XAMT-061 BASIC GAS TURBINE ENGINE 4 Weeks **PRINCIPLES II**

Prerequisite: *See Below Tuesday and Thursday
7 - 10 p.m.

Fee: \$70.00

This course is designed to provide the Aircraft Maintenance Engineer and Aircraft Mechanic with the theoretical knowledge to assist them in the maintenance and servicing of Gas Turbine Engines in the following subject areas:

Fuel Controllers: types, general function parameters, basic flow charts, etc., self-study groups in Fuel Control Units, some engine instruments.

Engine Starting: starter requirements, starting procedures, unsatisfactory starts, such as hot or hunt starts, etc.

Engine Ratings: purpose of engine trim and condition trend monitoring.

Films and some demonstrations will accompany the lectures.

***Applicants must have successfully completed XAMT-060 before applying for XAMT-061.**

Textbook required.

Commencement date - Tuesday, November 16

XWF-001 WEATHER PHENOMENA 5 Weeks **AND FORECAST**

Prerequisite: None Tuesday, 7 - 10 p.m.

Fee: \$32.00

This course is offered to those wishing to learn more weather and weather processes. It offers a good grounding in meteorology to private pilots, soaring, gliding, and ballooning enthusiasts, as well as T.V., radio and other media personnel. Part of this course is devoted to the public aspects of weather, how to read and understand weather information which is offered at weather offices and the interpretation of weather forecasts.

Topics include:

- How to read and understand a simple forecast
- Properties of the atmosphere
- Atmospheric Pressure
- Winds
- Temperature and Humidity
- Stability and Instability
- Clouds
- Thunderstorms, Tornadoes, Hurricanes
- Air Masses
- Fronts
- The Weather Map
- Upper Air Charts
- Mountain Waves (Chinooks)
- Jet Streams
- Aviation Forecasts and reports
- Public Forecasts and Weather Warnings

Commencement date - Tuesday, September 21
Tuesday, February 8, 1983

XAMT-099 PRIVATE AIRCRAFT - 8 Weeks **LIMITED SERVICING AND** **INSPECTION BY PILOTS**

Prerequisite: *See below Thursday, 7 - 10 p.m.

Fee: \$48.00

*This course is for people with a general knowledge of aircraft operation. A private pilot's license or a student's pilot permit is preferred.

Objectives: To delineate the limitations on work that owners and pilots are allowed to perform; To outline proper maintenance methods; To acquaint owners and pilots with techniques used by engineers so that maintenance is performed in a safe manner; To reduce the possibility of aircraft malfunction by teaching correct preventive maintenance procedures. Specific course content will be influenced by the needs of the class.

Textbook cost approximately \$4.50.

Commencement date - Thursday, January 13, 1983

XAMT-100 AIRCRAFT FUEL 5 Weeks **INJECTION SYSTEMS**

Prerequisite: None Tuesday, 7 - 10 p.m.

Fee: \$46.00

This course will familiarize the student with continental and Bendix fuel injection systems used on modern small piston-engined aircraft.

Content: Basic aircraft and engine fuel systems; component description; operation and trouble shooting; component calibration using flow bench.

Commencement date - Tuesday, March 8, 1983

REGISTRATION FOR THE ABOVE COURSES

FALL - June 2, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
WINTER - November 2, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

ALBERTA COLLEGE OF ART



The Alberta College of Art provides SAIT-Evening Certificate Programmes during the Fall and Winter semesters in the following subjects: 2-D Design, 3-D Applied Design, General Drawing, Drawing for Illustration, Structural Drawing, Life Drawing, Composition, Painting, Printmaking, Watercolour, Landscape Painting, Jewellery, Ceramics, Sculpture, Stained Glass, Silkscreen Printing and, Collecting and Appreciation of Works of Art.

Students enrolling in the Certificate Programme enjoy distinct advantages beyond just the use of one of the largest and best equipped physical facilities of its kind in North America. While attending the Certificate Programme the student has access to the many exhibitions in the College of Art as well as Library privileges. The Instructors are from the daytime staff, and therefore the enthusiasm in the evening programme as well as the teaching expertise is not too dissimilar from that experienced in the day programmes. Each evening subject could aptly be described as a mini-day course utilizing the successful level of involvement practiced in the daytime programme, but within a more relaxed atmosphere; especially suitable to the needs and priorities of evening students.

Because the Evening Programme is specifically designed to meet the needs of the evening student, the courses do not duplicate the accumulated studio-instructor contact time of courses taken in the day programme. The certificate courses have no transferability credit attachments to the ACA Four Year Diploma.

A Continuing Education Certificate is offered on the successful completion of 6 - two level courses — two (or more courses) in Design, Drawing, and Composition and two or more courses from the following group of specialized study areas: Watercolour Painting; Life Drawing; Egg Tempera Painting; Printmaking; Sculpture; Jewellery; Ceramics, Stained Glass; General Drawing, Landscape Painting and Silkscreen.

Each semester of the Evening Programme is twelve weeks in duration — three hours per week to a total of thirty-six accumulated studio instructional hours. Each semester requires a separate registration.

INTRODUCTORY COURSES

In most cases, 2 Dimensional Design, Applied 3-D Design, Composition and Structural Drawing are prerequisites (check each course for specific prerequisites) for those looking forward to taking further fine arts studio or crafts studio courses. Introductory courses are offered in both the Fall and Winter sessions. Students who graduate from an Introductory course or courses, (suggested maximum is two per semester) in the Fall semester have the option of registering for another Introductory course in the Winter session.

INTRODUCTORY COURSES (12 week courses — repeating each semester)

2 Dimensional Design
Applied 3 Dimensional Design
Composition
Structural Drawing

FINE ART COURSES AND CRAFT COURSES

(24 week courses divided into two semesters unless otherwise indicated.) Twelve week studio courses repeat each semester.

Life Drawing
Painting
Advanced Painting Workshop
Egg Tempera Painting
Landscape Painting
Watercolour Painting
Printmaking Workshop
Sculpture
Drawing for Illustration
General Drawing
Jewellery and Jewellery Workshop
Ceramics (12 weeks only)
Stained Glass (12 weeks only)
Silkscreen Printing

At the end of each 12 week or 24 week period the students work will be evaluated for grading based on his/her growth and achievement. An 85% attendance in a semester is **mandatory** for evaluation and marking.

A Continuing Education Mark Statement is offered on the successful completion of a twelve week course (introductory) or twenty-four week course in a special studio area. Courses that evolve over 24 weeks are designated by the Roman Numeral I for the Fall semester and II for the Winter Semester.

REGISTRATION FOR THE ABOVE COURSES

FALL — June 2, 1982 - 9:00 a.m. to 4:00 p.m. — resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
WINTER — November 2, 1982 - 9:00 a.m. to 8:00 p.m. — resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

PREREQUISITES AND EQUIVALENCY

The course content of all ACA-Continuing Education subjects beyond the Introductory level is designed to accommodate the needs of students with prior learning and development of skills. It is therefore mandatory for the student to acquire the necessary prerequisites for a course prior to registering.

These prerequisites are established by either producing:

- a) your copy of your SAIT/Continuing Education student record, or
- b) your "Evening Mark Statement(s) for beginners course(s) already taken.

EQUIVALENCY

Students who have taken courses elsewhere, within the last 3 years, must produce a portfolio of 10 pieces of work for examination and any documentation of proof of previous instruction. Based on the approval of submitted portfolio and credentials (in person) a "Waiver Form" may be granted for submission by the applicant to the SAIT/Continuing Education Registration Office.

Students who have prior training other than at SAIT should contact the ACA Evening Supervisor at 284-8663 thirty days prior to registration for an appointment to be assessed.

Those students seeking to register for courses without prerequisites or those who have proof of the necessary previous training from SAIT should register directly.

FALL SEMESTER 1981

Alberta College of Art Evening Courses Commence: Monday, September 13 and
conclude the week ending Friday, December 3, 1982

WINTER SEMESTER 1982

Alberta College of Art Evening Courses Commence: Monday, January 17, 1983 and
conclude the week ending Friday, April 8, 1983

Alberta College of Art evening students who wish to make application to enter the College Diploma Programme after having completed various certificate programmes are invited to do so, and may use their certificates and portfolio as proof of former training and as additional content in their ACA Admission Test.

In exceptional cases students may make application through the SAIT Registrar's Office to have his/her portfolio used as a substitute for the admission test. In which case if the applicant was successful in this particular application procedure the requirement for successfully passing the admission test could be waived.

In all cases a student applying from the Certificate Evening Programme to the ACA Diploma day programme must make application through the SAIT Registrar's Office and must follow the procedures and satisfy all the general admission requirements of the Alberta College of Art.

NOTE:

1. No particular instructor, nor subject, nor specific time, nor course, can be guaranteed to any student.
2. Materials and supplies for art courses may be purchased at the Art College Bookstore and will cost from \$20.00 to \$100.00 depending on the course taken.
3. Evening students who wish to have prior prerequisites examined should contact the ACA Evening Supervisor at 284-8663.
4. In most cases a student attempting registration after the commencement date of a course will be asked to defer registering until the next semester.

DUE TO LIMITED FACILITIES, CLASS SIZE IS RESTRICTED. ENROLL EARLY.

REGISTRATION FOR THE ABOVE COURSES

FALL — June 2, 1982 - 9:00 a.m. to 4:00 p.m. — resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.

WINTER — November 2, 1982 - 9:00 a.m. to 8:00 p.m. — resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.

Check for registration location in your area.

INTRODUCTORY COURSES

XA-100 2-D DESIGN 12 Weeks

Prerequisite: None Monday or Tuesday
or Wednesday, 7 - 10 p.m.

Fee: \$95.00

The analysis and application of the elements and principles of two-dimensional design, the understanding of colour usage through applied research into colour (hue, value, chroma), color relationships and colour dynamics, and the discovery of the potentialities and limitations of various media through applied usage.

Commencement date - Monday, September 13
Tuesday, September 14
Wednesday, September 15
Monday, January 17, 1983
Tuesday, January 18, 1983
Wednesday, January 19, 1983

XA-009 3-D APPLIED DESIGN 12 Weeks

Prerequisite: None Monday or Tuesday
or Wednesday, 7 - 10 p.m.

Fee: \$95.00

An applied design course which includes drawing, design, colour and an introduction to designing in the third dimension. Drawing will include studies from nature and from man-made objects and creative drawing. From these studies, designs and stylizations will be adapted for application with various materials used in creating or decorating craft objects. The principles of design and colour will form the basis in applying the above. This is essential groundwork before proceeding to the techniques used in materials courses such as Ceramics, Jewellery, and Stained Glass.

Commencement date - Monday, September 13
Tuesday, September 14
Wednesday, September 15
Monday, January 17, 1983
Tuesday, January 18, 1983
Wednesday, January 19, 1983

XA-001 COMPOSITION 12 Weeks

Prerequisite: None Monday or Tuesday
or Wednesday, 7 - 10 p.m.

Fee: \$95.00

A foundation course designed to develop an understanding of elements, principles and processes of art. Through studies in line, investigations of form and space, and individual research, students in this introductory course will cover the essential groundwork for more complex problems in painting, drawing, printmaking and sculpture.

Commencement date - Monday, September 13
Tuesday, September 14
Wednesday, September 15
Monday, January 17, 1983
Tuesday, January 18, 1983
Wednesday, January 19, 1983

XA-111 STRUCTURED DRAWING 12 Weeks

Prerequisite: None Monday or Tuesday
or Wednesday, 7 - 10 p.m.

Fee: \$95.00

An analytical approach to drawing and the technical elements relating to form and planar structure. The student will become proficient in the development of illusion of form in space through an understanding of proportion, perspective and classical lighting.

Commencement date - Monday, September 13
Tuesday, September 14
Wednesday, September 15
Monday, January 17, 1983
Tuesday, January 18, 1983
Wednesday, January 19, 1983

FINE ART AND CRAFTS STUDIO COURSES

Twenty-four week: Intermediate I and Advanced II courses divided into two semesters unless otherwise indicated. Students who register in the Winter session of Course II should have previous experience equal to the course content of the Fall semester including the prerequisite of Course I.

XA-112 GENERAL DRAWING I 12 Weeks

Prerequisite: XA-001 Tuesday, 7 - 10 p.m.
and/or XA-111

Fee: \$113.00

Perceptual drawing with emphasis on "seeing" and drawing from "life" sources. Students will become aware of the interrelationship of form and space, develops a working understanding of pictorial organization, and becomes sensitive to and proficient in the use of various media as a vital part of drawing.

Commencement date - Tuesday, September 14
Tuesday, April 12, 1983

XA-112 GENERAL DRAWING II 12 Weeks

Prerequisite: XA-001 and/or Tuesday, 7 - 10 p.m.
XA-111 and
General Drawing
Level I

Fee: \$113.00

Perceptual drawing with emphasis on "seeing" and drawing from "life" sources. Students will become aware of the interrelationship of form and space, develop a working understanding of pictorial organization, and become sensitive to and proficient in the use of various media as a vital part of drawing.

Commencement date - Tuesday, January 18, 1983

XA-032 LIFE DRAWING I 12 Weeks

Prerequisite: XA-111 or Monday, 7 - 10 p.m.
XA-112 or
equivalent

Fee: \$113.00

A studio course that promotes visual involvement and visual awareness of structural element through drawing the human form. Students will explore gesture and characterization through short and sustained poses. Recommended only for those with previous drawing experience.

Commencement date - Monday, September 13

NOTE: Art students, please retain your acceptance letter, as you will need to present it when purchasing art supplies at the Alberta College of Art Book & Supply Store.

REGISTRATION FOR THE ABOVE COURSES

FALL - June 2, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
WINTER - November 2, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill
Check for registration location in your area.

XA-032 LIFE DRAWING II 12 Weeks

Prerequisite: XA-111 or
XA-112 or
equivalent and
Life Drawing
Level I

Monday, 7 - 10 p.m.

Fee: \$113.00

A studio course that promotes visual involvement and visual awareness of structural element through drawing the human form. Students will explore gesture and characterization through short and sustained poses. Recommended only for those with previous drawing experience.

Commencement date - Monday, January 17, 1983

**XA-034 DRAWING FOR
ILLUSTRATION I 12 Weeks**

Prerequisite: XA-001 and/or
XA-111

Tuesday, 7 - 10 p.m.

Fee: \$95.00

Course will cover the elements and techniques of black and white illustration in both the cartoon as well as the magazine/advertising illustration. Students will produce original comic and serious black and white illustrations as solutions to specific graphic and pictorial problems.

Commencement date - Tuesday, September 14

**XA-034 DRAWING FOR
ILLUSTRATION II 12 Weeks**

Prerequisite: XA-001 and/or
XA-111 and
Drawing for
Illustration
Level I

Tuesday, 7 - 10 p.m.

Fee: \$95.00

Course will cover the elements and techniques of black and white illustration in both the cartoon as well as the magazine/advertising illustration. Students will produce original comic and serious black and white illustrations as solutions to specific graphic and pictorial problems.

Commencement date - Tuesday, January 18, 1983

XA-021 PAINTING II 12 Weeks

Prerequisite: XA-100 and/or
XA-001 and
Painting I
Level I

Wednesday or Thursday,
7 - 10 p.m.

Fee: \$113.00

A study of painting techniques and compositional forms. Students will explore colour and form through an analysis of still-life, casts, human figure, portrait and landscape. Course will include slide lectures and individual or group critiques. Since this is a beginners/intermediate course in painting, fast drying acrylic painting techniques will be emphasized.

Commencement date - Wednesday, January 19, 1983

Thursday, January 20, 1983

**XA-041 ADVANCED PAINTING
WORKSHOP I 12 Weeks**

Prerequisite: XA-112 or
XA-032 or
XA-021 or
equivalent

Wednesday, 7 - 10 p.m.

Fee: \$113.00

A painting workshop for the advanced painter. The student is encouraged to experiment in media, subject matter and manner of expression. This research will be guided according to the demands of the problems involved, with emphasis on personal vision, approach and painting style.

Commencement date - Wednesday, September 15

**XA-041 ADVANCED PAINTING
WORKSHOP II 12 Weeks**

Prerequisite: XA-112 or
XA-032 or
XA-021 or
equivalent and
Advanced Painting
Workshop Level I

Wednesday, 7 - 10 p.m.

Fee: \$113.00

A painting workshop for the advanced painter. The student is encouraged to experiment in media, subject matter and manner of expression. This research will be guided according to the demands of the problems involved, with emphasis on personal vision, approach and painting style.

Commencement date - Wednesday, January 19, 1983

XA-031 LANDSCAPE PAINTING I 12 Weeks

Prerequisite: XA-111 or
XA-112 or
XA-001 or
XA-100 and
XA-021 or
equivalent

Tuesday, 7 - 10 p.m.

Fee: \$122.00

An advanced level course for artist/students who have already established the basic techniques of handling their medium and wish to explore the "landscape" as their reference point.

Commencement date - Tuesday, September 14

NOTE: Art students, please retain your acceptance letter, as you will need to present it when purchasing art supplies at the Alberta College of Art Book & Supply Store.

REGISTRATION FOR THE ABOVE COURSES

FALL - June 2, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
WINTER - November 2, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

XA-031 LANDSCAPE PAINTING II 12 Weeks

Prerequisite: XA-111 or XA-112 or XA-001 or XA-100 and XA-021 or equivalent and Landscape Painting Level I

Tuesday, 7 - 10 p.m.

Fee: \$122.00

An advanced level course for artist/students who have already established the basic techniques of handling their medium and wish to explore the "landscape" as their reference point.

Commencement date - Tuesday, January 18, 1983

Extensive use of nude and draped models. Critique discussion will be on going on an individual basis.

Commencement date - Tuesday, January 18, 1983

XA-018 PRINTMAKING WORKSHOP I 12 Weeks

Prerequisite: XA-100 and/or XA-001

Monday, 7 - 10 p.m.

Fee: \$122.00

A course designed for both beginner and one with previous printmaking experience. Emphasis will be placed on teaching the fundamental processes of etching: hard and soft grounds and aquatint techniques.

Commencement date - Monday, September 13

XA-011 WATERCOLOUR PAINTING WORKSHOP I 12 Weeks

Prerequisite: XA-100 and/or XA-001 XA-111 and/or XA-112 or equivalent

Monday, 7 - 10 p.m.

Fee: \$113.00

Study of the methods and techniques of watercolour painting using still life, nude figure and nature/landscape forms.

Commencement date - Monday, September 13

XA-018 PRINTMAKING WORKSHOP II 12 Weeks

Prerequisite: XA-100 and/or XA-001 and Printmaking Workshop Level I

Monday, 7 - 10 p.m.

Fee: \$122.00

A course designed for both beginner and one with previous printmaking experience. Emphasis will be placed on teaching the fundamental processes of etching: hard and soft grounds and aquatint techniques.

Commencement date - Monday, January 17, 1983

XA-011 WATERCOLOUR PAINTING WORKSHOP II 12 Weeks

Prerequisite: XA-100 and/or XA-001 XA-111 and/or XA-112 or equivalent and Watercolour Painting Workshop Level I

Monday, 7 - 10 p.m.

Fee: \$113.00

Study of the methods and techniques of watercolour painting using still life, nude figure and nature/landscape forms.

Commencement date - Monday, January 17, 1983

XA-125 CERAMICS WORKSHOP 12 Weeks

Prerequisite: Previous Ceramics experience and XA-009 or equivalent

Monday or Wednesday, 7 - 10 p.m.

Fee: \$122.00

Class offers advanced workshop experience for the serious ceramic artist. Instruction will involve skill development in throwing, glaze technology and glaze making, design and decorating, kiln loading and firing.

Commencement date - Monday, September 13
Wednesday, September 15
Monday, January 17, 1983
Wednesday, January 19, 1983

XA-051 PORTRAIT AND THE FIGURE I 12 Weeks

Prerequisite: XA-021 and XA-112

Tuesday, 7 - 10 p.m.

Fee: \$113.00

A painting class for those with previous experience in drawing and painting. Students will interpret and portray the character of the poses in their own medium and style. Extensive use of nude and draped models. Critique discussion will be on going on an individual basis.

Commencement date - Tuesday, September 14

XA-035 STAINED GLASS WORKSHOP 12 Weeks

Prerequisite: XA-009 and/or XA-001

Tuesday, 7 - 10 p.m.

Fee: \$122.00

An introduction to the techniques of leading and copper-foil assembly of stained glass. Students will design and assemble small projects of increasing complexity as they develop skill in the craft.

Commencement date - Tuesday, September 14
Tuesday, January 18, 1983

XA-051 PORTRAIT AND THE FIGURE II 12 Weeks

Prerequisite: XA-021 and XA-112

Tuesday, 7 - 10 p.m.

Fee: \$113.00

A painting class for those with previous experience in drawing and painting. Students will interpret and portray the character of the poses in their own medium and style.

NOTE: Art students, please retain your acceptance letter, as you will need to present it when purchasing art supplies at the Alberta College of Art Book & Supply Store.

REGISTRATION FOR THE ABOVE COURSES

FALL - June 2, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
WINTER - November 2, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

XA-033 SCULPTURE WORKSHOP I 12 Weeks

Prerequisite: XA-009 and Wednesday, 7 - 10 p.m.
 XA-111 or
 XA-112 or
 equivalent

Fee: \$122.00

A studio course to stimulate maximum involvement. Projects are designed to develop and expand the students perception, imagination and sensitivity as applied to three dimensional form concept. Students will experience various materials and develop technical skills progressively.

Commencement date - Wednesday, September 15

XA-033 SCULPTURE WORKSHOP II 12 Weeks

Prerequisite: XA-009 and Wednesday, 7 - 10 p.m.
 XA-111 or
 XA-112 or
 equivalent
 and Sculpture
 Workshop Level I

Fee: \$122.00

A studio course to stimulate maximum involvement. Projects are designed to develop and expand the student's perception, imagination and sensitivity as applied to three dimensional form concept. Students will experience various materials and develop technical skills progressively.

Commencement date - Wednesday, January 19, 1983

XA-014 JEWELLERY I 12 Weeks

Prerequisite: XA-009 or Monday or Tuesday,
 equivalent 7 - 10 p.m.

Fee: \$122.00

The first twelve weeks of this course is an introductory prerequisite to any other jewellery course in the evening program. Course will concentrate on the three basic hand skills of sawing, soldering and simple stone setting presented within the context of specific problems.

Commencement date - Monday, September 13
 Tuesday, September 14

XA-014 JEWELLERY II 12 Weeks

Prerequisite: XA-009 or Monday or Tuesday,
 equivalent and 7 - 10 p.m.
 Jewellery Level I

Fee: \$122.00

The last twelve weeks of the course, while utilizing the skills acquired in the introductory class, will in addition concentrate on rivetting, elementary casting and the fabrication of wire, sheet and tubing within the context of specific problems.

Commencement date - Monday, January 17, 1983
 Tuesday, January 18, 1983

XA-024 JEWELLERY/ENAMELLING WORKSHOP I 12 Weeks

Prerequisite: Jewellery I & II or Tuesday, 7 - 10 p.m.
 consent of Instructor

Fee: \$113.00

An introduction to six basic enamelling techniques. One completed project each semester.

Commencement date - Tuesday, September 14

NOTE: Art students, please retain your acceptance letter, as you will need to present it when purchasing art supplies at the Alberta College of Art Book & Supply Store.

XA-024 JEWELLERY/ENAMELLING WORKSHOP II 12 Weeks

Prerequisite: Enamelling Workshop I Tuesday, 7 - 10 p.m.
 Fee: \$113.00

An introduction to six basic enamelling techniques. One completed project each semester.

Commencement date - Tuesday, January 18, 1983

XA-019 EGG TEMPERA PAINTING I 12 Weeks

Prerequisite: 2D Design or Tuesday, 7 - 10 p.m.
 Composition or Drawing

Fee: \$113.00

This complete comprehensive course will explore the fascination and time honored method of combining dry tempera pigment and eggs for use as a painting medium.

Commencement date - Tuesday, September 14

XA-019 EGG TEMPERA PAINTING II 12 Weeks

Prerequisite: Egg Tempera Painting I Tuesday, 7 - 10 p.m.

Fee: \$113.00

Advanced course in Egg Tempera Painting.

Commencement date - Tuesday, January 18, 1983

XA-015 BASIC SILKSCREEN I 12 Weeks

Prerequisite: 2D Design and Wednesday, 7 - 10 p.m.
 Composition or Drawing

Fee: \$113.00

A course in which the student will be instructed in the basic techniques of silkscreen. Areas covered will include stencil methods, working directly on the screen, registration techniques and photo-silkscreen, methods.

Commencement date - Wednesday, September 15

XA-015 BASIC SILKSCREEN II 12 Weeks

Prerequisite: Basic Silkscreen I Wednesday, 7 - 10 p.m.

Fee: \$113.00

A course in which the student will be instructed in the basic techniques of silkscreen. Areas covered will include stencil methods, working directly on the screen, registration techniques and photo-silkscreen, methods.

Commencement date - Wednesday, January 19, 1983

XA-017 COLLECTING & APPRECIATION OF WORKS OF ART I 12 Weeks

Prerequisite: None Monday, 7 - 10 p.m.

Fee: \$95.00

Course will concentrate on the European Impressionists and the main movements in aesthetics and style through to the work of contemporary exhibiting artists.

The student will derive the necessary understanding of "art" for its appreciation and its "value" through slide lecture, gallery visits and discussion.

Commencement date - Monday, September 13

REGISTRATION FOR THE ABOVE COURSES

FALL - June 2, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
 WINTER - November 2, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
 Check for registration location in your area.

**XA-017 COLLECTING & APPRECIATION 12 Weeks
OF WORKS OF ART II**

Prerequisite: Collecting & Appreciation of Works of Arts I Monday, 7 - 10 p.m.

Fee: \$95.00

Course will concentrate on the European Impressionists and the main movements in aesthetics and style through to the work of Contemporary exhibiting artists.

The student will derive the necessary understanding of "art" for its appreciation and its "value" through slide lecture, gallery visits and discussion.

Commencement date - Monday, January 17, 1983

XA-061 TEEN ART I 12 Weeks

Prerequisite: None Tuesday & Thursday, 4 - 6 p.m.

Fee: \$113.00

A special course for senior high school students seriously considering post secondary education in the fine or applied arts.

Course will introduce students to the elements and principles of drawing design and colour in a 2 dimensional format.

Commencement date - Tuesday, September 14

XA-061 TEEN ART II 12 Weeks

Prerequisite: None Tuesday & Thursday, 4 - 6 p.m.

Fee: \$113.00

A special course for senior high school students seriously considering post secondary education in the fine or applied arts.

Course will introduce students to the elements and principles of drawing design and colour in a 2 dimensional format.

Commencement date - Tuesday, January 18, 1983

XA-060 CHILDREN'S ART 24 Weeks

Prerequisite: None Saturday, 10 a.m. - 12 noon

Fee: \$77.00

A general program in the visual arts. Course includes experience in drawing, painting, mixed media, 3-D construction, clay structure/puppets, story telling/comic strips/super-8 animated filmmaking.

Commencement date - Saturday, September 11

OFFICE HOURS

August 30, 1983 to March 10, 1983
Monday to Thursday - 8:00 a.m. to 8:00 p.m.
Friday - 8:00 a.m. to 4:30 p.m.
December 16, 1982 to January 3, 1983
March 14, 1983 to August 29, 1983
Monday to Friday - 8:00 a.m. to 4:30 p.m.

NOTE: Art students, please retain your acceptance letter, as you will need to present it when purchasing art supplies at the Alberta College of Art Book & Supply Store.

REGISTRATION FOR THE ABOVE COURSES

FALL — June 2, 1982 - 9:00 a.m. to 4:00 p.m. — resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
WINTER — November 2, 1982 - 9:00 a.m. to 8:00 p.m. — resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

AUTOMOTIVE-DIESEL DEPARTMENT

MISCELLANEOUS MECHANICS COURSES

The Automotive-Diesel Department will make every effort to arrange instruction in any subject area related to the field if there is sufficient demand. Courses can be short and intensive for mechanics interested in new model technical changes or longer to suit the needs of the general public. Spokesmen for groups or individuals should contact Continuing Education to discuss their needs; phone number: 284-8881.

XAST-011 CAR OWNERS' COURSE 12 Weeks

Prerequisite: None Monday or Wednesday,
7 - 10 p.m.

Fee: \$70.00

This course is intended to give any car owner a better understanding of his or her automobile. Preventive maintenance which can often prevent and/or reduce expensive repair operations is stressed. The course will assist anyone towards having a better knowledge of their automobile and its operation. However actual repair work by students is not a part of the course.

During the course instruction is given on the maintenance and operation of all units in the automobile, including shop dismantling so that their construction and operation may be clearly seen.

Textbook cost approximately \$5.00.

Commencement date - Monday, September 13
Wednesday, September 15
Monday, January 10, 1983
Wednesday, January 12, 1983

Additional classes will be held on Tuesday and Thursday evenings if required.

XAST-012 NEW MODEL TUNE UP 6 Weeks

Prerequisite: *See Below Monday and Wednesday, 7 - 10 p.m.

Fee: \$102.00

This course is designed to familiarize experienced mechanics with tune up procedures to be followed on the 1978, 1979, 1980 and 1982 major line models.

Topics covered will be carburetion, ignition systems, charging systems, starting systems and emission and control systems as applied to automotive use.

Actual components and working automobiles will be used where possible to demonstrate the principles and methods used.

***Any applicant that is not a Journeyman or Apprentice Motor Mechanic must have taken XAST-016 Tune-Up II.**

Commencement date - Monday, January 10, 1983
Monday, March 21, 1983

XAST-013 COMPRESSED NATURAL GAS FUEL SYSTEMS 3 Weeks

Prerequisite: Instruction is at the Tuesday and Thursday,
level of an experienced 7 - 10 p.m.
Motor Mechanic or Heavy Duty
Mechanic

Fee: \$70.00

This course is designed to familiarize mechanics with basic compressed natural gas fuel systems for cars, and light to medium trucks. The total system will be studied including each component, its function and operation. The peculiarities of common conversion installations will be discussed and typical operating models will be studied. In addition the nature of natural gas as a fuel and the safe practices in handling it will be explained. The service station apparatus and compressors will also be discussed.

Commencement date - Tuesday, October 5
Tuesday, January 11, 1983

XAST-014 PROPANE FUEL SYSTEMS 3 Weeks

Prerequisite: Instruction is at the Tuesday and Thursday,
level of experienced Motor 7 - 10 p.m.
Mechanics or Heavy Duty
Mechanics

Fee: \$68.00

This is a course on the basic principles of LPG fuel systems used on fork lift trucks, passenger cars, trucks and school buses. Included in the instruction will be a study of the components, the characteristics of propane, the diagnosis of troubles, the service and adjustment of the system, and safety.

The class time will be divided equally between theory and practical study of components and systems.

Commencement date - Tuesday, November 23

XAST-015 AUTOMOTIVE TUNE UP I 4 Weeks

Prerequisite: *See Below Monday and Wednesday, 7 - 10 p.m.
and one Saturday 8 - 3 p.m.

Fee: \$167.00

A short intensive course designed to help those people who wish a more detailed plan and approach to doing an engine tune-up. Emphasis will be on trouble shooting, inspection and minor repairs that can safely be carried out by the average person. Instruction will be practical in nature with the greater part of the time being spent on demonstration and actual repair projects.

***XDM-010, XAST-011 or the equivalent of High School Automotives are the prerequisites for the course. All applicants must possess a good knowledge of the English language both written and spoken.**

Textbook cost approximately \$6.50.

Commencement dates - Monday, September 27
Monday, October 25
Monday, November 22
Monday, January 10, 1983
Monday, February 7, 1983
Monday, March 7, 1983

REGISTRATION FOR THE ABOVE COURSES

FALL - June 3, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
WINTER - November 3, 1983 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

XAST-016 AUTOMOTIVE 4 Weeks
TUNE-UP II

Prerequisite: *See Below Monday and Wednesday,
6:30 - 9:30 p.m.
and one Saturday 8 - 3 p.m.

Fee: \$167.00

An advanced course designed for the new model vehicles with electronic ignition systems. Emphasis will be on trouble shooting of electronic ignition systems, alternators, and four barrel carburetors using low cost test instruments and a common sense approach. A review of basic solid state electrical theory will be taught as required. Twenty four hours will be spent as a lab, theory situation and the Saturday following the final theory class will be spent on actual repair on student vehicles.

***XAST-015 is a prerequisite or completion of 2nd year, Motor Mechanic Program.**

Commencement date - Monday, November 15
Monday, February 21, 1983

XAST-020 AUTOMOTIVE 6 Weeks
AIR CONDITIONING

Prerequisite: Mechanical aptitude Tuesday and Thursday,
will be an asset 7 - 10 p.m.

Fee: \$151.00

This course is designed to provide the Journeyman Mechanic with the knowledge to be able to trouble shoot, service and overhaul all automotive air conditioning systems.

Theory will consist of the principle of operation of air conditioning systems; recognition and function of compressors, condensers, evaporators, expansion valves, svts receiver - dehydrators and mufflers; study of refrigerants and lubrication, varieties, characteristics storage, handling and servicing precautions.

Shop and demonstrations will be the servicing and overhauling where possible of compressors, receiver dehydrators, control valves, expansion valves; testing and diagnosis of faulty components, evacuating, purging and refilling of air conditioning systems. These operations will be performed on both factory installed systems and systems supplied as kits for both automobiles and trucks. School units will be used for basic study, and manufacturer's service manuals will be used for references.

Commencement date - Tuesday, January 11, 1983
Tuesday, March 29, 1983

XAST-021 AUTOMOTIVE AIR 5 Weeks
CONDITIONING TEMPERATURE
CONTROLS

Prerequisite: Understanding of the Tuesday and Thursday,
basic Automotive Air 7 - 10 p.m.
Conditioning will be an asset

Fee: \$127.00

The objective of this program is to provide the Automotive Mechanic with the knowledge required to be able to diagnose and repair the manual and automatic temperature control equipment found on General Motors, Ford and Chrysler air conditioning systems. The manufacturers test equipment and test procedures will be used on shop trainers. The program will be taught in four sections: 1. Basic principles of automatic temperature controls which will include the electronic and mechanical temperature sensors, 2. General Motors temperature controls, 3. Ford temperature controls, 4. Chrysler temperature controls.

Commencement date - Tuesday, February 22, 1983

XAST-024 AGRICULTURE AND 5 Weeks
HEAVY DUTY EQUIPMENT
AIR CONDITIONING

Prerequisite: Mechanical aptitude Tuesday and Thursday,
will be an asset 7 - 10 p.m.

Fee: \$127.00

This course is designed for operators and servicemen of agriculture and heavy duty equipment. Emphasis will be on service, diagnosis and repair of the air conditioning system.

Theory will cover the principle of operation, refrigerant characteristics and handling precautions, function and service of compressors, expansion valves, receiver driers, suction throttling valves, condensers, evaporators and compressor electrical circuits.

School trainers will be used to teach diagnosis of faulty components as well as discharging, evacuation and recharging procedures.

Commencement date - Tuesday, October 26

XAST-025 BASIC AUTOMATIC 6 Weeks
TRANSMISSIONS

Prerequisite: *See Below Monday and Wednesday,
7 - 10 p.m.

Fee: \$151.00

This course is primarily for persons interested in the construction and principles of operation of automotive automatic transmissions. Since this is an introductory course and time will not permit in-depth study of the refinements in all types of transmissions, the studies will be confined to general principles and shop study of one typical common transmission. One half of the time will be spent in theory study and one half in shop.

***Must have a good command of the English language. Should have some mechanical background and understanding of the operation of passenger car gasoline engines.**

Text required approximately \$25.00.

Commencement date - Monday, September 20

XAST-026 ADVANCED AUTOMATIC 4 Weeks
TRANSMISSIONS I

Prerequisite: *See Below Monday and Wednesday, 7 - 10 p.m.

Fee: \$119.00

PART I - General Motors Transmissions for passenger Cars and Light Trucks.

A student starting in this course must understand the basic principles of torque converters, hydraulic circuitry, and the operation of clutches, bands and planetary gear systems.

Classroom studies will cover the circuitry and refinements in such transmissions as Turbo-Hydramatic 125, 180, 200, 250-C, 350, 375-B, 325, 400 and 200-4R.

Shop time will be devoted to the disassembly and assembly procedures, inspection of parts, testing of pressures and shift points, trouble shooting and adjustments of some of the above transmissions. Ratio of approximately ¼ theory and ¾ shop.

***Apprenticeship Motor Mechanics please note that this course does not make you exempt from the fourth year of the Motor Mechanic program.**

***Must have taken Basic Automatic Transmissions (XAST-025) or be involved in the Automotive Repair Trade as a Mechanic.**

Textbook cost approximately \$21.50.

Commencement date - Monday, January 10, 1983

REGISTRATION FOR THE ABOVE COURSES

FALL - June 3, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
WINTER - November 3, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

XAST-027 ADVANCED AUTOMATIC 4 Weeks **TRANSMISSIONS II**

Prerequisite: *See Below Monday and Wednesday,
7 - 10 p.m.

Fee: \$119.00

PART II — Ford Automatic Transmissions for Passenger Cars and Light Trucks.

A student starting in this course must understand the basic principles of torque converters, hydraulic circuitry; and the operation of clutches, bands and planetary gear systems.

Classroom studies will cover the circuitry and refinements in such transmissions as: C3, C4, C6, FMX, A0 and ATX.

Shop time will be devoted to the disassembly and assembly procedures, inspection of parts, testing of pressures and shift points, trouble shooting and adjustments of some of the above transmissions. Ratio of approximately ¼ theory and ¾ shop.

***Apprentice Motor Mechanics please note that the course does not make you exempt from the fourth year of the Motor Mechanic program.**

***Must have taken Basic Automatic Transmissions (XAST-025) or be involved in the Automotive Repair Trade as a Mechanic.**

Textbook cost approximately \$21.50.

Commencement date - Monday, February 21, 1983

XAST-030 MOTOR MECHANIC 12 Weeks **JOURNEYMAN UPGRADING**

Prerequisite: *See Below Tuesday and Thursday,
7 - 10 p.m.

Fee: \$135.00

This course is a review of the subject material taught in the Motor Mechanic Apprentice Training program. The instruction will be mainly theory, oriented toward the special needs of the students. Shop work and demonstrations will be limited to those exercises essential for clarification of principles.

***Screened by Apprenticeship Branch and must have a good command of the English language both written and spoken.**

Textbooks cost approximately \$20.00.

Commencement date - Tuesday, September 21
Tuesday, January 11, 1983

XDM-010 BASIC ENGINES 6 Weeks

Prerequisite: *See Below Monday and Wednesday, 7 - 10 p.m.

Fee: \$113.00

This course is designed to assist those who wish to improve their knowledge of internal combustion common to the Automotive and Heavy Duty repair trades.

The instruction consists of theory-lectures, shop assignments and demonstrations, and is basic to XDM-019.

Theory lectures will include the following: two and four stroke cycle engine principles; lubrication, carburetion, cooling, ignition, air intake and exhaust systems; engine pistons and rings, valves and valve gear, connecting rods, crankshafts, timing gear, oil and water pumps, and introduction to the diesel engine principle.

Demonstrations and some practice will accompany lectures on engine overhaul procedures and reconditioning of parts.

***The applicant must possess a good command of the English language, both written and spoken.**

Textbook costs approximately \$9.00.

Commencement date - Monday, September 13
Monday, February 14, 1983

XDM-011 BASIC ELECTRICAL SYSTEMS 3 Weeks

Prerequisite: *See Below Monday and Wednesday,
7 - 10 p.m.

Fee: \$59.00

This is a short course designed to provide the student with sufficient training to enable the student to diagnose trouble and do minor repairs to a Basic Electrical System.

Emphasis will be on basic function and test procedures of the electrical system in the following areas: the battery, the simple cranking circuit, the simple charging circuit (AC) and the electrical accessories.

Instruction will be practical in nature with the greater part of the time being spent on component testing and demonstrations.

***All applicants must possess a good knowledge of the English language both written and spoken.**

Commencement date - Monday, October 25
Monday, March 28, 1983

XDM-012 HEAVY DUTY 16 Weeks **ELECTRICAL SYSTEMS**

Prerequisite: Journeyman Motor Tuesday, 7 - 10 p.m.
Mechanic or Heavy Duty
Mechanic; XAST-014 or XAST-015
or equivalent

Fee: \$125.00

This course is intended for people working in the heavy duty repair industry who wish to improve their theoretical knowledge and practical skills to isolate problems and make repairs to electrical systems.

Textbook approximately \$6.50.

Commencement date - Tuesday, January 11, 1983

XDM-015 FUNDAMENTALS OF 5 Weeks **POWER TRAIN I**

Prerequisite: None Monday and Wednesday,
7 - 10 p.m.

Fee: \$95.00

Learn the techniques of repairing your standard clutch, transmission, driveline, and rear axle.

This course is essential to persons interested in learning the principles of operation, and the proper approach to carrying out limited repair work on clutches, transmissions, and drive-lines.

Emphasis will be on trouble shooting, inspection and repair that may be carried out by the average person.

Instruction will be practical in nature with the greater part of the time being spent on demonstrations and component repair.

Commencement date - Monday, November 15

REGISTRATION FOR THE ABOVE COURSES

FALL — June 3, 1982 - 9:00 a.m. to 4:00 p.m. — resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.

WINTER — November 3, 1982 - 9:00 a.m. to 8:00 p.m. — resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

XDM-016 FUNDAMENTALS OF POWER TRAIN II 6 Weeks

Prerequisite: None Tuesday and Thursday,
7 - 10 p.m.

Fee: \$113.00

Learn the techniques of repairing your standard steering-suspension, and brakes (Power and Standard).

This course is designed to help those who wish to gain knowledge in repairing their car or light duty truck in these areas.

Emphasis will be placed on trouble shooting, inspection, repair and preventative maintenance of the components covered. Approximately two thirds of the time will be theory time, and one third on lab demonstrations and assignments.

Commencement date - Tuesday, January 11, 1983

XDM-017 HEAVY DUTY TRANSMISSIONS 6 Weeks

Prerequisite: *See Below Tuesday and Thursday, 7 - 10 p.m.

Fee: \$113.00

This course is designed for mechanics, owner operators (trucks) and farmers who wish to be brought up to date on the service procedures of today's twin and triple countershaft transmissions. A basic introduction and gearing principles and the principles and operation of heavy duty clutches used with the transmissions mentioned above will be covered.

Classroom studies will cover the principles of: push type clutches, pull type clutches, gear design, power flow patterns, bearing failure analysis, trouble shooting and air operating systems.

Shop time will involve students working in small groups on school units such as: Spicer and Lipe rollaway clutches, Fuller RT and RTO models and Spicer SST models.

***Applicants should possess a good general knowledge of the basic power train, and have had some experience with mechanics tools.**

Commencement date - Tuesday, November 2
Tuesday, January 11, 1983

XDM-018 HEAVY DUTY REAR AXLES 4 Weeks

Prerequisite: *See Below Tuesday and Thursday, 7 - 10 p.m.

Fee: \$102.00

This course is designed for mechanics and owner operators (trucks) who wish to improve their understanding of heavy duty single and tandem rear axle servicing and adjusting.

Classroom studies will use approximately one half of the time and will cover the principles of operation, and the adjusting procedures.

Lab time will involve students with hands on to dismantle, measure, assemble and adjust the following components:

Single reduction axle, two speed planetary systems, two speed double reduction axles, and inter-axle power dividers.

***A good general knowledge of basic power train.**

Commencement date - Tuesday, February 22, 1983

XDM-019 DIESEL ENGINES 6 Weeks

Prerequisite: *See Below Tuesday and Thursday,
7 - 10 p.m.

Fee: \$131.00

This course is designed for mechanics in industry who wish to be up-to-date on diesel engine peculiarities. This course will give the student an understanding of the design of the two and four stroke cycle diesel engine, also different manufacturer designs. A basic introduction to the fuel injection systems for each engine is included.

Theory lectures will include: facts about the compression ignition (diesel) engine; compression ratio; four stroke cycle engines; two stroke cycle engines; two stroke cycle scavenging (symmetrical); supercharging of the diesel engine; the proper mixing of fuel and air and how it is accomplished; types of combustion chambers; piston design, types of cylinder liners, removal and installation, engine cooling (direct and indirect); horsepower; thermal and volumetric efficiency; flywheels, balancers and vibration dampeners; camshafts and cam followers; a basic into gas turbines, high compression natural gas and LPG burning engines and gas injection will be covered to a lesser degree.

***Basic Engines (XDM-010) or considerable experience with internal combustion engines. Students must have experience or training and must possess a good knowledge of the English language, both written and spoken.**

Commencement date - Tuesday, January 11, 1983

XDM-020 FUEL INJECTION SYSTEMS 7 Weeks

Prerequisite: *See Below Tuesday and Thursday,
6 - 9 p.m.

Fee: \$152.00

This is a course in fuel injection system which is designed to give the mechanic a better understanding of the design and requirements of various fuel injection systems. This course is not designed to make fuel injection mechanics out of the student, but a comprehensive coverage of the more popular systems is planned to give him a good understanding for trouble shooting the various diesel engine fuel systems and governor problems.

The demonstrations and assignments will be confined to fuel injection equipment, governor service, and engine adjustments.

Theory lectures will include: review of combustion chamber types and principles; filter types and problems; types of fuel supply pumps; fuel injection introduction and hydraulic principles; fuel injection requirements; single plunger individual pumps; port helix principle; multiplunger inline pumps include American Bosch, Robert Bosch, Simms, CAV and Caterpillar; special port helix plunger; American Bosch distributor pumps; Cummins P.T. fuel system principle; unit injectors; G.M. and Murphy delivery valve types; injector types and nozzles, differential and poppet types; special nozzle types; timing of pumps and injectors to engines; governors of various types - mechanical - hydraulic pneumatic; adjustments of governors; advantages and disadvantages of each; general trouble shooting of the diesel engine performance.

***Must be mechanically minded and have a special interest in the "Diesel Engines".**

Commencement date - Tuesday, February 22, 1983

REGISTRATION FOR THE ABOVE COURSES

FALL - June 3, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
WINTER - November 3, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

XDM-021 AUTOMOTIVE DIESEL 6 Weeks
SYSTEMS

Prerequisite: None Wednesday, 7 - 10 p.m.

Fee: \$37.00

This course is designed to acquaint a person with the principles of operation and maintenance of the automotive diesel. Explanation of the design features will be discussed. The course will consist mostly of explanations of how the fuel systems work in controlling the diesel engine. Course should answer questions on how to save money on the maintenance of your diesel engine, the do's and don'ts.

Lectures will be given on design, operation of diesel engine and injection pumps, preventive maintenance and basic trouble shooting. Shop will consist of fuel system demos, basic tune-up, and familiarization with an operating diesel engine. Course will be kept at a level which will be easily understood.

Commencement date - Wednesday, October 13
Wednesday, January 12, 1983**XDM-023 HYDRAULICS I 6 Weeks**Prerequisite: *See Below Tuesday and Thursday,
7 - 10 p.m.

Fee: \$86.00

This course is designed as an introduction to hydraulics. The principles of hydraulics, the function of the various components used within the hydraulic system will be covered.

We will be disassembling all components to show common defects and service procedures required to repair and adjust each component.

This course is designed for persons servicing, using, applying and selling hydraulic equipment.

***The applicant must possess a good command of the English language both written and spoken.**

Textbook cost approximately \$17.00.

Commencement date - Tuesday, September 21

XDM-024 HYDRAULICS II 6 WeeksPrerequisite: XDM-023 or Tuesday and Thursday,
Journeyman Heavy Duty 7 - 10 p.m.
or Motor Mechanic

Fee: \$86.00

This course is designed to introduce the serviceman, salesman and operator to typical hydraulics systems.

The student will learn how each component works in the system. They will go through a trouble shooting procedure to locate problems and when possible, make proper adjustments to solve the problems.

Commencement date - Tuesday, April 5, 1983

XDM-026 HEAVY DUTY MECHANIC 10 Weeks
JOURNEYMAN UPGRADINGPrerequisite: *See Below Tuesday and Thursday,
7 - 10 p.m.

Fee: \$113.00

This course is a review of the subject material taught in the Heavy Duty Mechanic Apprentice Training program. The instruction will be mainly theory, oriented toward the special needs of the students. Shop work and demonstrations will be limited to those exercises essential for clarification of principles.

***Applicants for entry into this course must supply proof of an Alberta Temporary Journeyman Certificate or Interim Identification Card issued by the Alberta Apprenticeship Branch.**

Textbooks cost approximately \$20.00.

Commencement date - Tuesday, October 5
Tuesday, January 11**XSEM-011 SMALL ENGINES 7 Weeks**Prerequisite: *See Below Monday and Wednesday,
7 - 10 p.m.

Fee: \$152.00

This is a short course designed to provide students with sufficient training to enable them to diagnose trouble, tune-up and to repair engines which are common to lawn mowers, garden tractors, snow blowers and roto-tillers, etc.

Emphasis will be on trouble shooting, overhaul and tune-up procedures.

The time will be divided one half theory and one half shop.

Students may bring a small single cylinder engine to class for rebuilding.

***The applicant must possess a good knowledge of the English language, both written and spoken.**

Textbooks cost approximately \$19.00.

Commencement date - Monday, October 25
Monday, January 10, 1983**XSEM-013 MOTORCYCLE 4 Weeks**
MAINTENANCEPrerequisite: *See Below Monday and Wednesday,
7 - 10 p.m.

Fee: \$48.00

This is a short intensive course designed to acquaint the mature motorcycle owner with the standard service, adjustments, minor repairs and tune up of motorcycles in general.

The instruction will be mainly lecture and practical demonstrations on such aspects as electrical system, ignition, carburetion, adjustments and settings and tire repairs. The emphasis will be on the student's own areas of interest and typical problems encountered by the cyclist.

***Applicants must have a good knowledge of the English language both written and spoken and mechanical aptitude.**

Textbook cost approximately \$15.00.

Commencement date - Monday, January 10, 1983

XSEM-014 OUTBOARD MOTOR 3 Weeks
TUNE-UPPrerequisite: None Monday and Wednesday,
7 - 10 p.m.

Fee: \$59.00

This course is designed for owners of motor powered boats. The objective is to familiarize students with the care, maintenance and minor repair of outboard motors.

XSEM-011 is available for those interested in engine overhaul.

Students must supply their own motor. ***No motor over 20 H.P. will be considered for this course.**

***Any motor larger than 20 H.P. becomes unwieldy. They are too heavy to bench handle as well as too much time is spent on a one to one basis with these students. Also the motors are more complex to explain individually for the time allotment given.**

Commencement date - Monday, March 21, 1983

REGISTRATION FOR THE ABOVE COURSES

FALL - June 3, 1983 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.

WINTER - November 3, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.

Check for registration location in your area.

XAB-010**BASIC AUTOBODY
REPAIR I****7 Weeks**

Prerequisite: None

Tuesday and Thursday,
6:30 - 9:30 p.m.

Fee: \$232.00

This course is offered to people interested in learning the basic techniques in Auto Body metal repair.

Instruction will cover basic oxy-acetylene welding and brazing, panel shaping, metal finishing and the application of primers, lacquer and enamel paints.

All practical exercises will be done on materials provided by the school. No automobiles will be accepted as projects.

Students will be required to purchase a textbook. Welding goggles, pliers and suitable clothing for shop work are required for the first night.

Commencement date - Tuesday, September 14
Tuesday, January 11, 1983

XAB-011**BASIC AUTOBODY
REPAIR II****6 Weeks**

Prerequisites: XAB-010 or
equivalent. Considerable
oxy-acetylene welding
experience.

Tuesday and Thursday,
6:30 - 9:30 p.m.

Fee: \$239.00

This course is offered to people interested in learning the basic techniques in automobile metal repair.

Instruction will cover basic metal repair techniques, shaping, filling, filing, minor patching, and application of undercoats.

Practical exercises will be carried out on student vehicles. Type of work will include repair of minor dents and minor rust repairs.

Students will be charged a nominal fee for cost of materials used.

NOTE: This course is NOT designed for major collision repairs, frame straightening, replacement of welded on panels, or serious rust damage. There will be NO application of top coats.

Commencement date - Tuesday, September 21
Tuesday, January 11, 1983

XAB-012**BASIC AUTOMOBILE
REFINISHING****6 Weeks**Prerequisite: XAB-011 or
equivalentTuesday and Thursday,
6:30 - 9:30 p.m.

Fee: \$257.00

This course is offered to people interested in learning the basic techniques in automobile refinishing.

Instruction will cover basic autobody surface preparation, application of undercoats, application of top coats and spray gun technique. Safety in relation to refinishing will also be covered.

Practical exercises will be carried out on students' vehicles. Type of work will include sanding, removal of scratches and rock chips. Students will be charged a nominal fee for cost of paint materials.

IMPORTANT NOTE - This is NOT a course in metal repair. There will be NO metal repair, filling or patching of rust allowed. This is strictly a refinishing course.

Students are required to provide suitable clothing for shop work. Text book is optional. "Auto Body Repair & Refinishing" by Hogg.

Commencement date - Tuesday, November 2
Tuesday, February 22, 1983

OFFICE HOURS

August 30, 1982 to March 10, 1983

Monday to Thursday - 8:00 a.m. to 8:00 p.m.

Friday - 8:00 a.m. to 4:30 p.m.

December 16, 1982 to January 3, 1983

March 14, 1983 to August 29, 1983

Monday to Friday - 8:00 a.m. to 4:30 p.m.

REGISTRATION FOR THE ABOVE COURSES

FALL - June 3, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.

WINTER - November 3, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.

Check for registration location in your area.

BUSINESS EDUCATION DEPARTMENT

The Business Education Department provides Continuing Education services in the following groups of subject areas:

Certificate and Diploma Programs

Including courses offered on a credit basis towards a certificate or towards the day program Diploma of Applied Arts in Business Administration. See Day Calendar for details of requirements.

General Interest Subjects

Including personal and small business management and finance courses. Students are invited to enroll in any subjects taught by the Department subject to meeting the prescribed prerequisite. It is not necessary to enroll in a Certificate Program.

Secretarial Arts Subjects

Including skill development and upgrading courses in typing and shorthand.

Special Courses and Seminars

Should any organization – professional, occupational, business or social – be interested in the facilities and instruction available but not able to find a course suitable to its requirements, the Business Education Department would be glad to devise a course or seminar to meet that group's specific need.

For further information call Continuing Education, 284-8881, or the Business Education Continuing Education Coordinator, 284-8485.

CERTIFICATE PROGRAMS

Under the jurisdiction of Continuing Education, the Business Education Department of the Southern Alberta Institute of Technology offers evening certificate programs in Marketing, Accounting, Administration, Clerk-Typist, and Hotel Operations. The certificate is issued upon successful completion of the required program in either Continuing Education or day courses.

The Continuing Education Certificate Program is not equivalent to the two-year day program which leads to a Diploma of Applied Arts in Business Administration. However most courses in the program are equivalent to similar subjects or are half-course subjects in the day program. Credits for courses completed in Continuing Education may subsequently be transferred to apply as credit marks in a Diploma program.

Certificates

Anyone desiring a second certificate would require a minimum of four additional classes above those used towards credit for the first certificate.

Certificate Requirements:

Successful completion with a C standing in each subject studied. Students are graded using the same assessment standards as are applied to full time day students.

Prerequisites:

Courses in lieu of stated prerequisites from other institutions may be approved by the Instructional department only. Students must apply in writing 15 days prior to commencement of course. Address inquiries to the Continuing Education Coordinator, Business Education Department.

Admission:

The program requires that students possess either a high school diploma or have a suitable background of experience, as approved by the Business Education Department. **Upon registration, intent to pursue a Certificate or Diploma must be declared.**

Fees:

The fee structure for a Certificate Program shall be on a course by course basis.

Credit may be granted for courses studied in other educational institutions up to a maximum of 40% of the program hours.

Students wishing to obtain credit towards the Certificate Program for courses taken previously at S.A.I.T. (whether offered under other titles or course numbers) should also address their enquiries for credit marks to the Continuing Education offices. No fee is chargeable for these exemptions.

PROGRAMS

1. Marketing Certificate
2. Accounting Certificate
3. Administration Certificate
4. Hotel Operations Certificate
5. Clerk Typist Certificate

See chart on next page for listings of individual subjects.

Prerequisites apply to candidates for diploma and where there is more than one level in a subject.

BUSINESS CERTIFICATE SUBJECT REQUIREMENTS	Marketing		Accounting		Administration		Hotel Operations (1)		Clerk Typist (2)	
	Req'd.	4 Opt.	Req'd.	2 Opt.	Req'd.	4 Opt.	Req'd.	2 Opt.	Req'd.	2 Opt.
XACC-101 Financial Accounting I		*	*			*	*			*
XACC-201 Financial Accounting II			*							*
XACC-301 Managerial Accounting			*							
XCAC-311 Cost Accounting I			*							
XCAC-411 Cost Accounting II			*							
XCAC-511 Cost Accounting III				*						
XADM-101 Business Administration	*		*		*		*			*
XADM-201 Business Planning		*		*	*			*		
*XORB-201 Organizational Behavior		*			*		*			
*XPAD-301 Personnel Administration					*		*			
XMKT-101 Marketing	*					*				
XMKT-201 Marketing Management	*									
XECO-103 Economics for Marketers	*					*				
XPSY-101 Psychology		*				*		*		
XADV-201 Advertising		*				*		*		
XSEL-201 Selling		*		*		*		*		
XCRE-301 Credit and Collection		*		*		*				
XLAW-101 Business Law		*		*		*		*		
XMSD-401 Retail Merchandising		*				*				
XRET-205 Fashion Merchandising		*								
XPUR-101 Purchasing and Materials Management		*		*		*				
XENGL-122 Introductory Report Writing		*		*		*				
XENGL-126 Effective Business Letter Writing		*		*		*				
XENGL-200 Interpersonal and Group Communication		*		*		*				
XTAX-301 Taxation		*		*		*				
XFOP-201 Front Office Procedures							*			
XACC-256 Hospitality Accounting							*			
XFBC-101 Food and Beverage Cost Control								*		
XCC-050 Food Service Management								*		
XSA-100 Typing (Beginning)									*	
XSA-200 Typing (Intermediate)									*	
XSA-300 Typing (Advanced)									*	
XSA-110 Dicta-Typing									*	
XSA-115 Business English Refresher									*	
XSA-340 Pitman Shorterhand										*
XSA-150 Gregg Shorthand										*
XSA-170 Business Machines									*	
XSA-130 Office Procedures									*	
XSA-140 Pitman Shorterhand										*
XSA-120 Intro. Legal Sec.										*
XSA-370 Shorthand Speed Building (for all types of shorthand)										*
XSA-180 Introduction to Word Processing										*

*Supervision I and Supervision II, together, may be presented in lieu of one of Organizational Behavior or Personnel Administration.

(1) The 2 Option Subjects of the Hotel Certificate can be chosen from the current day calendar, but must be approved by the Hotel Program Coordinator.

(2) Shorthand may be substituted for XSA-110 Dicta-Typing with approval of Secretarial Arts Program Coordinator.

XADM-101 BUSINESS ADMINISTRATION/ ORIENTATION 15 Weeks

Prerequisite: A good general knowledge of English
Monday 5:30 - 8:30,
Monday or Tuesday
or Wednesday or
Thursday 7 - 10 p.m.

Fee: \$86.00

Functions and forms of business. Role of management planning and decision making; organizing; staffing, directing and controlling.

A special-program Saturday seminar may replace two evening sessions for Business Administration students.

Textbook cost approximately \$18.00.

Commencement date - Monday, September 13 (5:30)
Monday, September 13 (7:00)
Tuesday, September 7
Wednesday, September 8 (5:30)
Wednesday, September 8 (7:00)
Thursday, September 9
Monday, January 10, 1983 (5:30)
Monday, January 10, 1983 (7:00)
Tuesday, January 11, 1983
Wednesday, January 12, 1983 (5:30)
Wednesday, January 12, 1983 (7:00)
Thursday, January 13, 1983

Commencement date - Tuesday, September 7
Tuesday, January 11, 1983

XMKT-101 MARKETING 15 Weeks

Prerequisite: A good general knowledge of English
Wednesday, 6 - 9 p.m.

Fee: \$86.00

Product planning and strategy; forecasting; place; pricing; the consumer; promotion; control of the marketing program.

Textbook cost approximately \$20.00.

Commencement date - Wednesday, September 8
Wednesday, January 12, 1983

XMKT-201 MARKETING MANAGEMENT 15 Weeks

Prerequisite: XMKT-101
Wednesday, 7 - 10 p.m.

Fee: \$86.00

An application of marketing principles at the managerial level.

Commencement date - Wednesday, September 8

XRET-205 FASHION MERCHANDISING 15 Weeks

Prerequisite: None
Wednesday, 7 - 10 p.m.

Fee: \$86.00

Structure and efficiency of the fashion industry. A study of buying, pricing, forecasting, promoting, coordination and control for the fashion retailer.

Textbook cost approximately \$20.00.

Commencement date - Wednesday, September 8
Wednesday, January 12, 1983

XSEL-201 SELLING 15 Weeks

Prerequisite: Some experience in selling preferred
Monday, 7 - 10 p.m.

Fee: \$86.00

Prospecting; preparing presentations; handling stalls and objections; selling quality; closing sales; personal motivation; selling benefits.

Commencement date - Monday, September 13
Monday, January 10, 1983

XMSD-401 RETAIL MERCHANDISING 15 Weeks

Prerequisite: Relevant experience or XMKT-101 if taking for certificate credit
Wednesday, 7 - 10 p.m.

Fee: \$86.00

Retail consumer behavior; retail store ownership; store location and planning; staff management; profit planning and control; buying and pricing methods; merchandise handling; advertising, selling, and sales support; security aspects.

Commencement date - Wednesday, January 12, 1983

XADM-201 BUSINESS PLANNING 15 Weeks

Prerequisite: XADM-101
Monday, 7 - 10 p.m.

Fee: \$86.00

This course will cover the practical application of planning, decision-making and controlling fundamentals in depth, as a function of administration. It will introduce many new quantitative tools and techniques now being introduced in business.

Commencement date - Monday, September 13
Monday, January 10, 1983

XLAW-101 BUSINESS LAW 15 Weeks

Prerequisite: None
Wednesday, 7 - 10 p.m.

Fee: \$86.00

Study of the basis of law; legal consequences of the various types of businesses; negotiable instruments; real and personal property; laws of contract.

Textbook cost approximately \$15.00.

Commencement date - Wednesday, September 8
Wednesday, January 12, 1983

XCRC-301 CREDIT AND COLLECTION 12 Weeks

Prerequisite: None
Tuesday, 7 - 10 p.m.

Fee: \$70.00

The study of the nature and role of credit; credit management; credit granting; investigation and analysis of credit risks; the collection functions; credit control.

REGISTRATION FOR THE ABOVE COURSES

FALL — June 3, 1982 - 9:00 a.m. to 4:00 p.m. — resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
WINTER — November 3, 1982 - 9:00 a.m. to 8:00 p.m. — resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

XPUR-101 PURCHASING AND MATERIALS MANAGEMENT 15 Weeks

Prerequisite: None Tuesday, 7 - 10 p.m.
Fee: \$86.00

Role in business, quality, specifications, standardization, sources, pricing, contracts, negotiation, inventory and analysis. This is a survey course directed primarily to the industrial market.

Commencement date - Tuesday, January 11, 1983

XADV-201 ADVERTISING 15 Weeks

Prerequisite: A good general knowledge of English Monday, 7 - 10 p.m.
Fee: \$86.00

Management of the advertising function in a marketing organization; advertising forms and objectives, use of agencies, budgeting, print layout, evaluation of media, etc.

Commencement date - Monday, September 13

XECO-103 ECONOMICS FOR MARKETERS 15 Weeks

Prerequisite: A good general knowledge of English Tuesday, 7 - 10 p.m.
Fee: \$86.00

Introduction - the basic economic problem. The market mechanism and the price system. Basic elements of demand and supply. Price elasticity. Analysis of costs. Theory of production. Profit maximization. Effects of market imperfections and government intervention. Economic trends.

Textbook cost approximately \$5.00.

Commencement date - Tuesday, January 11, 1983

XPSY-101 PSYCHOLOGY 15 Weeks

Prerequisite: None Thursday, 7 - 10 p.m.
Fee: \$86.00

This introductory course focuses on many of the basic concepts and principles of psychology. The main areas examined include the learning process, remembering and forgetting perception, motivation, emotion, study of personality, social behavior and mental health.

Textbook cost approximately \$30.00.

Commencement date - Thursday, September 9
Thursday, January 13, 1983

XORB-201 ORGANIZATIONAL BEHAVIOR 15 Weeks

Prerequisite: None Tuesday, 7 - 10 p.m.
Fee: \$86.00

A study of the internal dynamics of the business organization. Topics include: group processes, leadership and managerial styles, worker satisfaction, morale, motivation, change management, communication patterns, and job enrichments.

Textbook cost approximately \$20.00.
Commencement date - Tuesday, September 7
Tuesday, January 11, 1983

XPAD-301 PERSONNEL ADMINISTRATION 15 Weeks

Prerequisite: Relevant experience or XORB-201 if taking for credit Tuesday, 6:30 - 9:30 p.m.
Fee: \$86.00

Recruitment; selection; training; performance appraisal; job classification; job description; salary administration; labour relations.

Commencement date - Tuesday, September 7
Tuesday, January 11, 1983

XTAX-301 TAXATION 15 Weeks

Prerequisite: A good general knowledge of English Wednesday, 7 - 10 p.m.
Fee: \$86.00

A study of taxation of individuals, with special emphasis on the changes in legislation effective January 1, 1972, business and property income; corporation and their shareholders; partnerships; capital gains; deceased persons and foreign income.

Textbook cost approximately \$20.00.

Commencement date - Wednesday, September 8
Wednesday, January 12, 1983

XSOS-112 and XSOS-212, together, may be presented in lieu of ONE of XORB-201 Organizational Behavior, or XPAD-301 Personnel Administration, for credit towards a Business Certificate.

XSOS-112 PRINCIPLES OF SUPERVISION I 10 Weeks

Prerequisite: A good general knowledge of English Tuesday or Thursday, 7 - 10 p.m.
Fee: \$59.00

Supervisory functions; understanding the formal organization; informal work groups; job satisfaction factors; leadership styles; motivation of employees; maintenance of morale; delegation; rules and policies; employee discipline; communicating with employees; conferences and meetings; other related topics.

Textbook cost approximately \$12.00.

Commencement date - Tuesday, September 21
Thursday, September 23
Tuesday, January 11, 1983
Tuesday, March 29, 1983

REGISTRATION FOR THE ABOVE COURSES

FALL - June 3, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
WINTER - November 3, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

*Prerequisites apply to candidates for diploma and where there is more than one level in a subject.

XSOS-212 PRINCIPLES OF 10 Weeks

SUPERVISION II

Prerequisite: XSOS-112

Thursday, 7 - 10 p.m.

Fee: \$59.00

The personnel aspect of supervision, plus selected areas determined by interest of students, including work and job organization; employee selection; orientation and training; performance evaluation; labour-management relations; grievances and discipline; employee counselling; work planning; other related topics.

Commencement date - Thursday, January 13, 1983

Thursday, March 31, 1983

OFFICE HOURS

August 30, 1983 to March 10, 1983

Monday to Thursday - 8:00 a.m. to 8:00 p.m.

Friday - 8:00 a.m. to 4:30 p.m.

December 16, 1982 to January 3, 1983

March 14, 1983 to August 29, 1983

Monday to Friday - 8:00 a.m. to 4:30 p.m.

THE FOLLOWING COURSES ARE OFFERED IN THE COMMUNICATION ARTS DEPARTMENT, Page 45.

XENGL-121	WRITING FUNDAMENTALS	12 Weeks	XENGL-160	EFFICIENT READING	12 Weeks
XENGL-122	INTRODUCTORY REPORT WRITING	12 Weeks	XENGL-143	SPEECH I	12 Weeks
XENGL-126	EFFECTIVE BUSINESS LETTER WRITING	12 Weeks	XENGL-200	INTERPERSONAL GROUP COMMUNICATION	15 Weeks

REGISTRATION FOR THE ABOVE COURSES

FALL — June 3, 1982 - 9:00 a.m. to 4:00 p.m. — resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.

WINTER — November 3, 1982 - 9:00 a.m. to 8:00 p.m. — resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.

Check for registration location in your area.

HOTEL OPERATIONS

XFBC-101 FOOD AND BEVERAGE COST CONTROL 12 Weeks

Prerequisite: Ability to perform basic arithmetic functions

Tuesday, 6 - 9 p.m.

Fee: \$70.00

This course is primarily concerned with descriptions, illustrations and explanations of systems that can be implemented to control two of the major costs of the food service industry: food and alcoholic beverages.

Topics examined will include: revenue control, purchasing, receiving, storing, calculation of daily food cost, food production, evaluation of results, beverage cost control - the store-room, the bar.

The course should appeal to those who are presently engaged in food and beverage management as well as to those wishing to enter the field.

Commencement date - Tuesday, September 7
Tuesday, January 11, 1983

XACC-265 HOSPITALITY ACCOUNTING 15 Weeks

Prerequisites: XACC-101

Wednesday, 6 - 9 p.m.

Fee: \$86.00

Uniform system of accounts for hotels, credit car, inventories, plant and equipment, intangible assets, payroll, partnerships, limited companies, departmental accounting.

Commencement date - Wednesday, September 8

XFOP-201 FRONT OFFICE PROCEDURE 15 Weeks

Prerequisite: None

Monday, 6 - 9 p.m.

Fee: \$86.00

Front office terminology and organization, room salesmanship and public relations, operation of N.C.R. and Sweda posting machines and other business machines.

Commencement date - Monday, September 13
Monday, January 10, 1983

XCC-050 FOOD SERVICE MANAGEMENT 8 Weeks

(See Culinary Arts Department)

OFFICE HOURS

August 30, 1982 to March 10, 1983
Monday to Thursday - 8:00 a.m. to 8:00 p.m.
Friday - 8:00 a.m. to 4:30 p.m.
December 16, 1982 to January 3, 1983
March 14, 1983 to August 29, 1983
Monday to Friday - 8:00 a.m. to 4:30 p.m.

REGISTRATION FOR THE ABOVE COURSES

FALL - June 3, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
WINTER - November 3, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

BUSINESS NON-CREDIT COURSES

NOTE: These are non-credit courses — not applicable to certificate or diploma programs.

XACC-003 ACCOUNTING FOR NON-ACCOUNTANTS I 15 Weeks

Prerequisite: None Tuesday, 6:30 - 9:30 p.m.
Fee: \$86.00

Introduction to accounting principles and techniques and a study of financial statements.

This course is designed for the owner of a small business or those who want a general knowledge of bookkeeping, or want to become a bookkeeper in a small office. It covers the accounting cycle and some interpretation of financial statements.

Commencement date - Tuesday, September 7

XACC-004 ACCOUNTING FOR NON-ACCOUNTANTS II 12 Weeks

Prerequisite: XACC-003 Tuesday, 7 - 10 p.m.
or a general knowledge of journals and ledgers
Fee: \$70.00

A study of financial statements, source and application of funds statements, budgeting, costing financing, capital structure in proprietorship, partnership and corporations, analysis of departmental operations.

The course is designed with the business manager or owner in mind and those who wish to further their knowledge of accounting.

Commencement date - Tuesday, January 11, 1983

XADM-011 SMALL BUSINESS MANAGEMENT 10 Weeks

Prerequisite: A good general knowledge of English Monday, 7 - 10 p.m.
Fee: \$59.00

This is a course for persons contemplating their own business, or for those persons who have recently started a new business (tradesmen, retailers, agents, small manufacturers, service station operators). The course is designed to help build a foundation for a profitable business operation by covering such subjects as: business law; bookkeeping; finance; extending credit; forms of business ownership and other aspects of administering the small business.

Textbook cost approximately \$15.00.

Commencement date - Monday, September 13
Monday, January 10, 1983

XHRA-151 BASIC BARTENDING 12 Weeks

Prerequisite: A good general knowledge of English Monday or Tuesday or Wednesday or Thursday, 6:30 - 10:00 p.m.
Fee: \$81.00

This course is offered to those who wish to learn the techniques and methods used in the preparation and service of Lounge Drinks.

The topics included are Beer and Ales; Wines; Spirits; and Cash Register Control.

Non-alcoholic beverages are used for demonstrations.

Textbook cost approximately \$6.00.

Commencement date - Monday, August 30
Tuesday, September 7
Wednesday, September 8
Thursday, September 9
Monday, January 10, 1983
Tuesday, January 11, 1983
Wednesday, January 12, 1983
Thursday, January 13, 1983

XTA-007 TRAVEL ADVISOR 12 Weeks

Prerequisite: None Monday and Thursday, 6:30 - 9:30 p.m.
Fee: \$113.00

This course is intended for those people who travel a great deal and wish to know more about travel arrangements.

Course content will include among other items:

- Basic ticketing methods and procedures;
- Domestic and international fares;
- Charters versus Scheduled Carriers;
- Tours and itineraries.

Commencement date - Monday, September 13
Monday, January 10, 1983

OFFICE HOURS

August 30, 1982 to March 10, 1983
Monday to Thursday - 8:00 a.m. to 8:00 p.m.
Friday - 8:00 a.m. to 4:30 p.m.
December 16, 1982 to January 3, 1983
March 14, 1983 to August 29, 1983
Monday to Friday - 8:00 a.m. to 4:30 p.m.

REGISTRATION FOR THE ABOVE COURSES

FALL — June 3, 1982 - 9:00 a.m. to 4:00 p.m. — resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
WINTER — November 3, 1982 - 9:00 a.m. to 8:00 p.m. — resumes November 4, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

SECRETARIAL ARTS COURSES

XSA-100 BEGINNING TYPING 12 Weeks

Prerequisite: None

Monday, 5:30 - 8:30 p.m.
Monday, Tuesday, Wednesday,
6:30 - 9:30 p.m.

Fee: \$70.00

Instruction in touch typing for persons who have no previous instruction. Electric typewriters are used.

Textbook and supplies cost approx. \$10.00.

Commencement date - Monday, September 13 (5:30)
Monday, September 13
Tuesday, September 7
Wednesday, September 8
Monday, January 10, 1983 (5:30)
Monday, January 10, 1983
Tuesday, January 11, 1983
Wednesday, January 12, 1983

***Applicants for XSA-200 and XSA-300 will be tested at the first class to ensure they meet prerequisite speed.**

XSA-200 *INTERMEDIATE TYPING 12 Weeks

Prerequisite: 30 wpm Monday, 6:30 - 9:30 p.m.
and/or XSA-100

Fee: \$70.00

A review of the keyboard with emphasis on proper technique, accuracy, and speed building will be given. Production of centering, basic letters, tables and memorandums is covered. Electric typewriters are used.

Textbook is the same as for XSA-100.

Commencement date - Monday, September 13
Monday, January 10, 1983

XSA-300 *ADVANCED TYPING 12 Weeks

Prerequisite: 40 wpm Wednesday, 6:30 - 9:30 p.m.
and/or XSA-200

Fee: \$70.00

This course is designed for advanced speed and accuracy building, as well as office production. The correct form of letters, tables, business forms, manuscripts and reports will be practiced. Electric typewriters are used.

Textbook and supplies cost approx. \$10.00.

Commencement date - Wednesday, September 8
Wednesday, January 12, 1983

XSA-250 SKILL BUILDING TYPING 12 Weeks

Prerequisite: 20 wpm Wednesday, 6:30 - 8:30 p.m.

Fee: \$48.00

This course will offer speed and accuracy building to enable students to meet the prerequisite of other XSA typing courses. Electric typewriters will be used. No textbook required. Typing paper needed.

Commencement date - Wednesday, September 8
Wednesday, January 12, 1983

XSA-101 BASIC TYPING 8 Weeks

Prerequisite: None

Wednesday, 6:30 - 9:30 p.m.

Fee: \$48.00

Instruction in touch typing for persons who have had little or no instruction.

Textbook and supplies cost approx. \$10.00.

Commencement date - Wednesday, April 6, 1983

XSA-201 TYPING REFRESHER SKILL BUILDING 8 Weeks

Prerequisite: 20 wpm

Monday, 6:30 - 9:30 p.m.

Fee: \$48.00

This course is designed for those persons with previous typing wishing a quick review of the keyboard along with skill-building practice for speed and accuracy.

No textbook required. Typing paper needed.

Commencement date - Monday, April 4, 1983

XSA-110 DICTA-TYPING 8 Weeks

Prerequisite: Typing speed Wednesday, 6:30 - 9:30 p.m.
of 35 wpm and a good
knowledge of the English
language both written
and spoken

Fee: \$48.00

The students will be instructed in the use of dictating and transcribing machines. Letters and instructions are recorded and the student is required to listen to the recorded matter and from this prepare a typewritten mailable copy. Short drills in basic grammatical principles will be given to assist the student with her transcription. Textbook cost approx. \$5.00.

Commencement date - Wednesday, April 6, 1983

XSA-115 BUSINESS ENGLISH REFRESHER 14 Weeks

Prerequisite: A working knowledge Thursday,
of written and spoken English 6:30 - 9:30 p.m.

Fee: \$81.00

This course is designed to help typists, transcribers, and secretaries improve their language skills and their basic office skills. The following topics are included: typewriting style and word division; dictation-transcription procedures; punctuation style; spelling; capitalization, number, and abbreviation style; proofreading and basic grammar rules.

Textbook cost approx. \$6.00.

Commencement date - Thursday, September 9
Thursday, January 13, 1983

XSA-160 BASIC BUSINESS LETTER WRITING FOR SECRETARIES 8 Weeks

Prerequisite: Good knowledge Thursday, 6:30 - 9:30 p.m.
of English or XSA-115

Fee: \$48.00

This course will cover the qualities of good business communications, as well as routine information letters, negative letters, and "good news" letters. No textbook required.

Commencement date - Thursday, April 8, 1983

REGISTRATION FOR THE ABOVE COURSES

FALL - June 3, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
WINTER - November 3, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

XSA-120 INTRODUCTORY LEGAL 12 Weeks
SECRETARY COURSE

Prerequisite: None

Tuesday or Thursday
6:30 - 9:30 (Sept. only),
Tuesday
6:30 - 9:30 (Jan. only)

Fee: \$70.00

This course will cover the following topics: definition of the general responsibilities of a legal secretary, land transactions, divorce, incorporating a company, wills and estates, litigation and sundry matters. No text required.

Commencement date - Tuesday, September 7
Thursday, September 9
Tuesday, January 11, 1983

XSA-130 FILING AND 14 Weeks
BASIC OFFICE PROCEDURES

Prerequisite: Touch typing Tuesday, 6:30 - 9:30 p.m.
speed of 35 wpm

Fee: \$81.00

An introduction to standard office procedures used in a business office by stenographers and receptionists. Topics covered will be: communications, filing and record keeping, mailing, reference sources, and duplicating procedures.

Textbook cost approx. \$20.00.

Commencement date - Tuesday, September 7
Tuesday, January 11, 1983

XSA-171 BUSINESS MACHINES 8 Weeks

Prerequisite: None Tuesday, 6:30 - 9:30 p.m.

Fee: \$48.00

Basic instruction and skill building on the ten-key adder, automatic printing calculator and electronic printing calculator. Some review of business arithmetic will be included.

Textbook cost approx. \$5.00.

Commencement date - Tuesday, April 5, 1983

XSA-180 INTRODUCTION TO 6 Weeks
WORD PROCESSING

Prerequisite: Typing 50 wpm -
Students will be pretested
for typing speed and production
ability

Fee: \$131.00

This course will provide a basic understanding of word processing terminology for those working in offices. Topics to be covered are: to practice equipment operation by doing basic text editing and printing on WANG System 25 - Model II Word Processing Equipment.

NOTE: Each student will have thirty hours of "hands-on" machine operation time.

No textbook required.

Commencement date - Tuesday, September 7
Tuesday, October 26
Tuesday, January 11, 1983
Tuesday, February 22, 1983
Tuesday, April 5, 1983
Tuesday, May 17, 1983

NOTE: Week long day classes in Introduction to Word Processing will be held this summer from Monday to Friday, 9:00 a.m. to 4:30 p.m.

July 12 - 16, 1982
July 19 - 23, 1982
July 26 - 30, 1982
August 9 - 13, 1982
August 16 - 20, 1982
August 23 - 27, 1982

XSA-280 ADVANCED WORD 6 Weeks
PROCESSING

Prerequisite: XSA-180 Monday and Wednesday,
6:30 - 9:30 p.m.

Fee: \$131.00

Advanced printing — dual column, merge; Math; Sort; Column edit (move and delete); Glossaries.

No text required.

Commencement date - Monday, September 13
Monday, November 1
Monday, January 10, 1983
Monday, February 21, 1983
Wednesday, April 6, 1983
Wednesday, May 25, 1983

XSA-140 PITMAN SHORTERHAND 24 Weeks
(Theory)

Prerequisite: A good Monday, 6:30 - 9:30 p.m. (Sept. only)
knowledge of the Monday and Thursday,
English language 6:30 - 9:30 p.m. (Jan. only)
written and spoken

Fee: \$135.00

This course is designed for persons who have not had any training in Pitman Shorterhand. Only the basic shorterhand theory will be presented.

Textbook cost and supplies approx. \$15.00.

Commencement date - Monday, September 13 (12 weeks)
Continues Monday, January 10, 1983
Monday, January 10, 1983

XSA-145 GREGG SHORTHAND 24 Weeks
(DJS Theory)

Prerequisite: A good Tuesday, 6:30 - 9:30 p.m.
knowledge of the English
language both written
and spoken

Fee: \$135.00

This course is designed for persons who have not had any training in Gregg Shorthand. The text **Gregg Theory**, Diamond Jubilee Series, Canadian Edition covers basic theory, basic grammar, spelling theory reinforcement.

Textbook cost and supplies approx. \$30.00.

Commencement date - Tuesday, September 7 (14 weeks)
Continues Tuesday, January 11, 1983
(10 weeks)

REGISTRATION FOR THE ABOVE COURSES

FALL — June 3, 1982 - 9:00 a.m. to 4:00 p.m. — resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
WINTER — November 3, 1982 - 9:00 a.m. to 8:00 p.m. — resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

XSA-150 GREGG SHORTHAND 15 Weeks
(Theory, Review and Speed Building)

Prerequisite: XSA-145 or previous course in Gregg Shorthand

Wednesday, 6:30 - 9:30 p.m.

Fee: \$86.00

This course is designed for persons who have completed a course in Gregg Shorthand (DJS). Students will review shorthand theory, brief forms, phrases, principles of joining, evolution drills and proportion of outlines. Home study is required. Dictation will commence at 40 wpm with a student progressing to a minimum pass mark of 60 wpm.

Textbook cost and supplies approx. \$20.00. A shorthand dictionary would be helpful.

Commencement date - Wednesday, September 8

XSA-340 PITMAN SHORTERHAND 12 Weeks
(Review and Speed Building)

Prerequisite: Pitman Shorthand or Pitman Shorterhand Theory

Monday and Thursday,
6:30 - 9:30 p.m.

Fee: \$135.00

This course is designed for persons who have had a basic course in Pitman Shorthand or Shorterhand, but now require a refresher. A review of "Pitman Shorterhand" will be given; followed by "Writing and Transcription Skill Development." Additional vocabulary and phrasing techniques will also be given at the completion of the course. Speeds of 60 - 120 wpm will be practiced depending on individuals.

Textbook and supplies cost approx. \$20.00.

Commencement date - Monday, September 13
Monday, January 10, 1983

XSA-370 SHORTHAND SPEEDBUILDING 8 Weeks

Prerequisite: Complete knowledge of theory of any shorthand system

Wednesday,
6:30 - 9:30 p.m.

Fee: \$48.00

This course is designed to increase speed through dictation and transcription at 60 - 120 wpm. Theory principles WILL NOT BE REVIEWED IN CLASS; however, assignments will consist of vocabulary review and expansion of any system of shorthand; Pitman, Pitman Shorterhand, Programme 21, Forkner, or Speedwriting.

No text is required; however, students should have a shorthand dictionary for their own system.

Commencement date - Wednesday, September 15
Wednesday, January 19, 1983
Wednesday, April 6, 1983

OFFICE HOURS

August 30, 1982 to March 10, 1983

Monday to Thursday - 8:00 a.m. to 8:00 p.m.

Friday - 8:00 a.m. to 4:30 p.m.

December 16, 1982 to January 3, 1983

March 14, 1983 to August 29, 1983

Monday to Friday - 8:00 a.m. to 4:30 p.m.

REGISTRATION FOR THE ABOVE COURSES

FALL - June 3, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
WINTER - November 3, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

CHEMISTRY DEPARTMENT

NOTE: Special courses will be offered by the Chemistry Department on request, provided a minimum attendance is insured.

Further information regarding credit courses may be obtained by direct consultation with the Head of Chemistry Department. Telephone 284-8442.

XCHT-476 BASIC COMPUTER 16 Weeks **PROGRAMMING WITH** **CHEMICAL APPLICATIONS**

Prerequisite: Some technical experience Thursday, 6 - 9 p.m.

Fee: \$91.00

An introductory BASIC programming course for those employed in the Chemical industry (or interested in Chemistry).

Instruction will include:

1. BASIC programming
2. Applications to everyday laboratory calculations
3. Best straight line fits for graphs (and calculations for concentration from them)
4. Graph plotting techniques (including titration end point calculations)
5. Instructor will include programs on a large computer and on a minicomputer

N.B. If the course is not completely filled, other prospective students not involved in the chemical industry will be accommodated by selection of appropriate non-chemical applications.

Commencement date - Thursday, January 13, 1983

XCHT-576 AIR POLLUTION - 12 Weeks **ITS MONITORING AND CONTROL**

Prerequisite: Some technical experience Thursday, 6:30 - 9:00 p.m.

Fee: \$95.00

A general discussion of air pollution and its sources in Alberta. Sampling techniques, legislation and guidelines, equipment for its control, economic considerations, impact on the environment.

Through field work, participants will gain experience in the use of stack sampling equipment and ambient air sampling equipment. Samples will be analyzed, using the Scanning Electron Microscope.

Calculations will illustrate most reporting and monitoring techniques.

Commencement date - Thursday, September 9
Thursday, January 13, 1983

XCHT-212 GLASS BLOWING 6 Weeks

Prerequisite: None Tuesday and Thursday,
6:30 - 9:00 p.m.

Fee: \$95.00

Basic glass blowing techniques. Construction of simple glass pieces - straight and T-seal, bends, bulbs and ring seals. Applications to the repair of chemical glassware and apparatus.

Commencement date - Tuesday, April 5, 1983

XCHT-478 BASIC CORROSION 12 Weeks

Prerequisite: Grade 12 Chemistry Tuesday,
or some 6:30 - 9:30 p.m.
technical experience

Fee: \$70.00

An introduction to the scope and terminology and corrosion; a brief review of related chemistry; metallurgy and types of cor-

rosion; corrosion detection; corrosion prevention-coatings, cathodic protection, typical field and plant problems. Microbiological corrosion.

Lectures will be supplemented by demonstrations, audio visual presentations and laboratory work.

Commencement date - Tuesday, September 14

XCHT-200 SCANNING ELECTRON 8 Weeks **MICROSCOPY I**

Prerequisite: None Wednesday, 6:30 - 9:30 p.m.

Fee: \$113.00

Basic Theory concerning the design and function of the Scanning Electron Microscope. Description and evaluation of the different gun and detector systems available. Theory of operation of the instrument and accessories; optimization of working parameters. Sample preparation, visual inspection and taking of micrographs. The course will be equally divided between Theory and Laboratory work.

The course will be offered twice, i.e. both Fall and Spring.

A. The Fall section will have some emphasis toward applications for Engineering Sciences. Geology and Material Sciences.

Commencement date - Wednesday, September 8

B. The Spring section will have some emphasis toward applications for Biological and Medical Sciences.

Commencement date - Wednesday, March 30, 1983

XCHT-300 SCANNING ELECTRON 8 Weeks **MICROSCOPY II**

Prerequisite: Either XCHT-200, Thursday, 6:30 - 9:30 p.m.
or working experience
with S.E.M. Instrumentation

Fee: \$113.00

This is a course at the advanced level, and will present Theory and Laboratory methods beyond the material covered in XCHT-200.

Specific Topics:

Theory:

- Wavelength and energy dispersive X-ray analysis on the S.E.M.
- Review of recent developments in S.E.M. Technology

Laboratory:

- X-Ray analysis
- Stereo Techniques
- Back scattered mode
- Induced electron mode
- Specialized methods of sample preparation as applicable to particular interests of students, and taken from recent S.E.M. publications

This course will be offered twice, i.e. Winter and Spring

A. The Winter section will have an emphasis toward applications for Engineering Sciences, Geology and Material Sciences.

Commencement date - Thursday, January 20, 1983

B. The Spring section will have an emphasis toward applications for Biological and Medical Sciences.

Commencement date - Thursday, April 21, 1983

REGISTRATION FOR THE ABOVE COURSES

FALL - June 3, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.

WINTER - November 3, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

XCHT-201 MICROBIOLOGY 9 Weeks

Prerequisite: None Tuesday and Thursday, 6:30 - 9:30 p.m.
Fee: \$167.00

An introductory course in microscopy, media preparation, plate counting, biochemical testing for organisms, water analysis and staining techniques.

Approximately 1 hour theory and 2 hours lab per night.

Commencement date - Tuesday, March 15, 1983

XCHT-290 INSTRUMENTAL METHODS 12 Weeks

Prerequisite: Some previous chemical laboratory experience Monday, 6:30 - 9:30 p.m.

Fee: \$113.00

Basic theory of the instruments and related laboratory work. Depending on interest, the content will be selected from the following: UV and IR spectrophotometry, chromatography, atomic absorption, emission spectroscopy, polarography, conductance, specific ion electrodes, mass spectrometry, nuclear magnetic resonance, radioactivity, fluorometry, and other standard techniques.

Commencement date - Monday, September 13
Monday, January 10, 1983

XCHT-241 WASTE WATER TREATMENT 12 Weeks

Prerequisite: None Tuesday,
6:30 - 9:00 p.m.

Fee: \$95.00

A general discussion of water pollution, with consideration given to both industrial and municipal (domestic) wastewater sources in Alberta.

Sampling techniques, legislation and guidelines, health effects, impact on the environment, equipment and techniques for wastewater treatment, economic considerations will be covered.

Field trips to waste water treatment facilities will be included.

Commencement date - Tuesday, September 14
Tuesday, January 18, 1983

XCHT-281 HEAT TRANSFER 18 Weeks

Prerequisite: Alberta High School Chem 30 and Math 30, Some technical experience Monday, 7 - 10 p.m.
Variations in prerequisites will be given consideration by the Instructor

Fee: \$167.00

A credit course in a basic concept of Unit Operations. Topics to be covered: theory of heat transfer, heat transfer by conduction, convection, and radiation, heat transfer equipment, various types of heat exchangers including double pipe and shell-and-tube, condensers, design and operation of equipment, etc.

Course work will include problem assignments, laboratory work and demonstrations.

Commencement date - Monday, September 13

XCHT-381 MASS TRANSFER 18 Weeks

Prerequisite: Alberta High School Chem 30 and Math 30. Some technical experience. Wednesday,
7 - 10 p.m.

Variations in prerequisites will be given consideration by the Instructor

Fee: \$167.00

A credit course in a basic concept of Unit Operations. Topics to be covered include theory of mass transfer and its applications to such operations as:

- absorption
- distillation
- extraction
- evaporation
- drying
- stripping

Course work will include boiling-point and equilibrium diagrams, relative volatility, azeotropes, binary mixtures, McCabe-Thiel construction method, design and operation of equipment for mass transfer.

Problem assignments, laboratory work and demonstrations will be included.

Commencement date - Wednesday, January 12, 1983

OFFICE HOURS

August 30, 1982 to March 10, 1983
Monday to Thursday - 8:00 a.m. to 8:00 p.m.
Friday - 8:00 a.m. to 4:30 p.m.
December 16, 1982 to January 3, 1983
March 14, 1983 to August 29, 1983
Monday to Friday - 8:00 a.m. to 4:30 p.m.

REGISTRATION FOR THE ABOVE COURSES

FALL - June 3, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
WINTER - November 3, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

CLOTHING DEPARTMENT

Evening Program

SPECIAL NOTE TO CLOTHING APPLICANTS

Techniques taught are an adaptation of industrial techniques to home sewing.

All classes follow a similar format where demonstration of techniques is followed by student work in class. A sewing machine and shared pressing equipment is provided for each student.

Students will be:

- directed by their instructor as to all fabric and patterns
- required to purchase instructional Booklets for most courses
- expected to do some homework

Aims of the Clothing Department are to:

1. Show the student how to create a pleasing wardrobe while learning to sew.
2. Construct attractive clothes in a minimum of time with quick techniques.
3. Learn the maximum use of your sewing machine, its operation and care.
4. Be able to select appropriate fabrics, interfacings, notions for each garment.
5. Prepare fabric, cut, mark, stitch and press to maintain grain perfection at all times creating a professional looking garment.
6. Be able to read a commercial pattern and learn about fitting. (Fitting will depend on the level of sewing being taken.)

Applicants should:

1. Specify on their application form the class evening where a choice is offered.
2. State second choice wherever possible.

Every effort will be made to meet these preferences but no guarantee is given: If no preference is given, the applicant will be allotted any class.

The Clothing Department will make every effort to arrange instruction in any related subject area if there is sufficient demand. Groups or individuals should contact:

Clothing Coordinator — 284-8305

or

Department of Continuing Education — 284-8881

GENERAL INTEREST CERTIFICATE

RECOGNITION OF ACHIEVEMENT IN CLOTHING CONSTRUCTION

Students wishing to qualify for the Certificate program must complete each of the following:

1. Clothing I
2. Clothing II
3. Clothing III
4. Tailoring I
5. Drafting to Fit — Bodices
6. Drafting to Fit — Skirts and Pants

and must complete 6 or more option courses (depending on length of course) in the Clothing Department. This represents a total of approximately 300 hours of classes.

Students wishing to qualify for the Certificate program must have a "B" standing or higher.

XU-009 SEWING ORIENTATION 10 Weeks

Prerequisite: None

Monday or Thursday, 7 - 10 p.m.

Fee: \$59.00

This course is recommended for the "new-sewer" or beginner. Learn to construct "simple to sew" fashions. Emphasis is placed on handling of fabrics, learning to measure, reading the commercial pattern and developing accuracy in your sewing techniques.

Commencement date - Monday, September 13
Thursday, September 16
Monday, January 24, 1983
Thursday, January 27, 1983
Monday, April 11, 1983

XU-010 CLOTHING I 10 Weeks

Prerequisite: Some sewing experience. Tuesday, Wednesday or Thursday, 7 - 10 p.m. Not recommended for the beginner

Fee: \$59.00

Clothing I is a basic sewing course for those with sewing experience who would like to improve their skills. (Sewing Orientation is recommended for the beginner.)

Start your basic wardrobe with a skirt and blouse while learning about fabrics and patterns. Grain perfection in cutting, stitching and pressing is stressed to give a professional finish to your garments.

Techniques include: zippers, waistbands, hemming, use of interfacing, collars, sleeves and finishing touches.

It is important that this course be taken as a prerequisite for the more advanced courses. All courses are built on a sequence of learning and Clothing I provides the necessary background.

Commencement date - Tuesday, September 14
Wednesday, September 15
Thursday, September 16
Tuesday, January 25, 1983
Wednesday, January 26, 1983
Thursday, January 27, 1983
Tuesday, April 12, 1983
Wednesday, April 13, 1983
Thursday, April 14, 1983

XU-020 CLOTHING II 10 Weeks

Prerequisite: XU-010 Monday, Tuesday or Wednesday, 7 - 10 p.m. or XDU-010

Fee: \$59.00

Add to your wardrobe and continue building your sewing skills with more difficult projects in the construction of shirts and ladies' pants.

Techniques include: use of interfacing, shirt collars, yokes, facings, sleeve plackets, cuffs, proper pant construction and ladies' fly front zipper.

Extra projects will be included to finish your outfit.

Commencement date - Monday, September 13
Tuesday, September 14
Wednesday, September 15
Monday, January 24, 1983
Tuesday, January 25, 1983
Wednesday, January 26, 1983
Monday, April 11, 1983
Tuesday, April 12, 1983

REGISTRATION FOR THE ABOVE COURSES

FALL — June 3, 1982 - 9:00 a.m. to 4:00 p.m. — resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.

WINTER — November 3, 1982 - 9:00 a.m. to 8:00 p.m. — resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.

Check for registration location in your area.

XU-021 LADIES' JACKETS 10 Weeks

Prerequisite: XU-020 or XDU-020 or XU-022 or XDU-022 or advanced sewing experience

Wednesday, 7 - 10 pm.

Fee: \$86.00

Add to your wardrobe a fashionable lady's jacket.

This course will help the **experienced** sewer in construction techniques and fitting of a tailored jacket, as well as selection of fabric and interfacing.

Techniques will include facings, interfacing, collars, sleeves, buttonholes, pockets, lining and finishing. A choice of patterns in keeping with the fashion picture will be selected.

Commencement date - Wednesday, September 15
Wednesday, April 13, 1983

XU-022 TAILORING I (Ladies' Coats) 10 Weeks

Prerequisite: XU-020 or XDU-020

Thursday, 7 - 10 p.m.

Fee: \$86.00

The basic principles of ladies' coat construction are covered in this course. The student will make a cotton fitting shell of the coat pattern chosen before proceeding.

Coat construction techniques include bound buttonholes, welt and patch pockets, interfacings, collar application, linings and finishing.

Class size limited.

NOTE: For admission to Tailoring I applicants should complete Clothing II or equivalent.

Commencement date - Thursday, September 16
Thursday, January 27, 1983

XU-033 MEN'S TAILORING 10 Weeks

Prerequisite: XU or XDU-021 and XU or XDU-022 or equivalent

Thursday, 7 - 10 p.m.

Fee: \$86.00

Learn tailoring techniques used in the construction of a man's jacket. Techniques include pad stitching, crease roll, hand padding, types of interfacing, pocket variations, sleeve finishes, vents, hand buttonholes, and finishing.

Commencement date - Thursday, September 16

XU-030 CLOTHING III 10 Weeks

Prerequisite: XU-020 or XDU-020 AND XU-041 or XDU-041

Monday, 7 - 10 p.m.

Fee: \$86.00

This is an advanced sewing course with more emphasis on fitting.

Learn how to use your basic fitting shell, making alterations to a commercial pattern. The student will choose her own pattern and will learn couture finishes and trims.

Instruction on sewing elegant fabrics such as silks and velvets will be included.

NOTE: For admission in Clothing III, applicants must have successfully completed Clothing II and Drafting to Fit - Bodices.

Commencement date - Monday, September 13
Monday, April 11, 1983

XU-041 DRAFTING TO FIT (Bodices) 6 Weeks

Prerequisite: XU-010 or XDU-010 or Advanced sewing experience

Wednesday,
7 - 10 p.m.

Fee: \$54.00

This course uses the Minott Method of Pattern Fitting to obtain a good fit.

Through the use of exacting body measurements and pattern adjustments, the student will make a basic bodice pattern, sew a shell for fitting and make the necessary pattern adjustments.

Students will also learn how to adapt this basic pattern to a commercial pattern.

Commencement date - Wednesday, September 15
Wednesday, January 26, 1983

XU-042 DRAFTING TO FIT (Skirts and Pants) 6 Weeks

Prerequisite: XU-010 or XDU-010 or Advanced sewing experience

Wednesday,
7 - 10 p.m.

Fee: \$54.00

With the use of exacting measurements and drafting principles, students will adapt a basic commercial skirt and pant pattern to their own personal measurements. This is obtained by using the Minott Method of Pattern Fitting.

Construction of a skirt and pair of pants will be made to test the alterations.

Commencement date - Wednesday, October 27
Wednesday, March 9, 1983

XU-043 BASIC FLAT PATTERN MAKING 10 Weeks

Prerequisite: Advanced sewing experience and a basic sloper

Monday, 7 - 10 p.m.

Fee: \$95.00

This course is an introduction to flat pattern method of designing using a basic dress pattern or sloper. Students will design and draft patterns for two garments using this method.

Practice problems include darts, collars, sleeves, skirts and a sheath dress.

Commencement date - Monday, September 13
Monday, January 24, 1983

XU-052 INTRODUCTION TO CLOTHING DESIGN 1 Week

Prerequisite: Interest in design

Tuesday and Thursday
7 - 10 p.m.

Fee: \$21.00

This seminar is a look at clothing design from all angles . . . starting with the history and birth of Couture to the business and art it has become today.

Introduction to clothing design lets the student do some designing after learning the basic elements of design, body structures, and methods of clothing design.

Commencement date - Tuesday, September 14
Tuesday, January 25, 1983

REGISTRATION FOR THE ABOVE COURSES

FALL — June 3, 1982 - 9:00 a.m. to 4:00 p.m. — resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
WINTER — November 3, 1982 - 9:00 a.m. to 8:00 p.m. — resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

XU-053 WARDROBE PLANNING 6 Weeks
FOR YOU

Prerequisite: None Tuesday, 7 - 10 p.m.
Fee: \$54.00

This course is designed to give an understanding of the fundamentals essential to developing an individual, flexible, and workable wardrobe. Upon completion of the course the student should be able to: develop a wardrobe in tune with her needs, personality and lifestyle; capitalize on colour and dress her figure faults.

Commencement date - Tuesday, September 14
Tuesday, March 29, 1983

XU-044 TODAY'S FABRICS 6 Weeks
AND THE CONSUMER

Prerequisite: None Tuesday, 7 - 10 p.m.
Fee: \$54.00

A helpful course for those purchasing or sewing clothes, draperies, or upholstery. It is designed for those who wish to become more knowledgeable as a consumer of today's textiles.

This will involve a look at the various fibres and blends, fabric construction and fabric finishes. Practical application of this information will be emphasized in discussion of such topics as selection of drapery, upholstery and carpeting for your home as well as fabric selection for home sewing and clothing.

Commencement date - Tuesday, October 26
Tuesday, January 25, 1983

XU-011 CHILDREN'S CLOTHING 10 Weeks

Prerequisite: XU-010 or XDU-010 Monday, 7 - 10 p.m.
or sewing experience
Fee: \$59.00

Sewing for children can be fun!

This course will help you sew several garments geared to young children sizes 6 - 14.

Simple construction techniques on both woven and knit fabrics will be geared to young children and pre-teen fashion.

Commencement date - Monday, September 13
Monday, April 11, 1983

XU-012 JEANS AND 6 Weeks
DENIM WEAR

Prerequisite: Sewing experience or Wednesday,
XU-010 or XDU-010 7 - 10 p.m.
recommended
Fee: \$37.00

Beat the high cost of inflation and learn to construct blue jeans for the whole family. Students will learn how to handle denim fabric and prepare a pair of jeans, and a vest with that "just purchased look".

Commencement date - Wednesday, September 16
Wednesday, March 16, 1983

XU-013 RECREATION SEWING 10 Weeks

Prerequisite: XU-020 or XDU-020 Tuesday, 7 - 10 p.m.
or equivalent
sewing experience
Fee: \$59.00

Learn the techniques necessary for making professional looking ski jackets and pants (warm-ups) for the entire family.

Techniques include handling of ski fabrics, linings, zippers, pockets and special feature items.

Commencement date - Tuesday, September 14

XU-069 TEENS — LEARN TO SEW 8 Weeks
(Level I)

Prerequisite: None Monday, 6:30 - 9:30 p.m.
Fee: \$48.00

A beginner's class! For the young teen wanting to learn to sew.

Learn how to:

- operate a sewing machine
- purchase suitable fabric and notions
- take measurements and read a commercial pattern
- cut, mark, stitch and press for a garment you will be proud to wear

Projects are geared for the beginner and the current fashion.

Commencement date - Monday, October 18
Monday, February 7, 1983

XU-070 TEENS — LEARN TO SEW 8 Weeks
(Level II)

Prerequisite: XU-069 or Monday, 6:30 - 9:30 p.m.
sewing experience
Fee: \$48.00

For the young teen who has been sewing but would like to improve her sewing skills.

Projects include a tote bag, skirt and blouse geared to the current fashion.

Commencement date - Monday, April 11, 1983

XU-071 KNIT TOPS ONLY 6 Weeks

Prerequisite: XU-010 or XDU-010 or Wednesday,
sewing experience 7 - 10 p.m.
Fee: \$37.00

Make knit shirts for all members of your family. Learn basic T-shirt construction with crew neck, set-in sleeve, rolled hem or band. From your basic pattern, make neckline variations such as V-neck, slot neck, high mandarin, zipper front and shawl collar. Fabrics will include T-shirt knits and velours.

Not recommended for beginners.

Commencement date - Wednesday, October 27
Wednesday, January 26, 1983

XU-016 ULTRASUEDE SEMINAR 1 Week

Prerequisite: None Tuesday and Thursday, 7 - 10 p.m.
Fee: \$16.00

This luxury fabric requires specific construction and handling. In this seminar you will learn the latest procedures for preparation and pattern selections as well as specific sewing and finishing details necessary for the construction of an Ultrasuede garment.

No sewing is done in class by the student.

Commencement date - Tuesday, September 14
Tuesday, March 8, 1983

REGISTRATION FOR THE ABOVE CLASSES

FALL — June 3, 1982 - 9:00 a.m. to 4:00 p.m. — resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
WINTER — November 3, 1982 - 9:00 a.m. to 8:00 p.m. — resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

XU-060**DRAPERY****8 Weeks**Prerequisite: Sewing
experienceTuesday, Wednesday or Thursday,
7 - 10 p.m.

Fee: \$48.00

Learn complete drape making procedures to construct a pair of lined drapes, unlined drapes and a Roman shade.

Procedures include heading types, hem finishes, fabric selection, measuring and hanging, custom pleating. Students may construct these projects for their own window requirements.

Commencement date - Tuesday, September 14
Wednesday, September 15
Thursday, September 16
Tuesday, January 25, 1983
Wednesday, January 26, 1983
Tuesday, April 12, 1983

XU-061**ADVANCED DRAPERY
AND BEDSPREADS****8 Weeks**Prerequisite: XU-060 or
XDU-060

Monday, 7 - 10 p.m.

Fee: \$48.00

This course is designed for drapery students who desire assistance in making more difficult and fashionable window coverings such as swags, valances, Austrian sheers, scalloped cafes, etc.

This course also covers: bedspread construction including such techniques as machine quilting, corner finishes, dust ruffles, pillow shams.

Commencement date - Monday, September 13
Monday, January 24, 1983

XU-063 PATCHWORK QUILTMAKING 6 Weeks

Prerequisite: XU-066 recommended

Thursday, 7 - 10 p.m.

Fee: \$37.00

Learn the techniques of patchwork, applique and quilting. Guidance will be given in fabric selection and handling of color.

Patchwork designs include: Dresden Plate, Four and nine patch variations, star designs and Log Cabin. Samples made will be used in projects. Finishing will be shown to enable the student to make a quilt.

Commencement date - Thursday, September 16
Thursday, January 27, 1983

XU-066 PATCHWORK PROJECTS 4 Weeks

Prerequisite: None

Monday, 7 - 10 p.m.

Fee: \$27.00

For the person wishing to learn simple patchwork designs on small projects that can be completed in a short time.

Demonstrations include Comforter, Cushion, Tote or Bunting Bag made from squares. Fabric scraps may be used for placemats, potholders, etc. Designs of Colonial Patch, Rail Fence, Log Cabin, Crazy Quilt and Bisquet Puff will be taught.

Machine sewing and tying (tufting) enable these projects to be quickly accomplished.

Commencement date - Monday, September 13
Monday, January 24, 1983

XU-065 QUILTING PIECED SAMPLER 8 Weeks

Prerequisite: None

Tuesday, 7 - 10 p.m.

Fee: \$48.00

Each student will make a quilt using twelve 16" blocks plus strips and borders. Speed methods of cutting and piecing will be used.

All blocks will be a variation of squares and triangles, e.g. Clay's Choice, Pieced Star, Broken Dishes. Twelve designs will be taught. One of each may be chosen or selected ones may be duplicated . . . thus the name "Sampler".

Students may choose quilt-a-block using a small frame or hoop or put the blocks into a "quilt-top" and finish on a large frame. Quilting will be taught but tie (tuft) may be used.

Commencement date - Tuesday, September 14
Tuesday, January 25, 1983

XU-067 PATCHWORK BOUTIQUE I 4 Weeks

Prerequisite: None

Thursday, 7 - 10 p.m.

Fee: \$27.00

Make "patchwork" small items suitable for gifts and bazaars. Items include "String" tea cozy, Folded Star pot holders, soft boxes, fabric frames and decorated baskets.

Commencement date - Thursday, September 23
Thursday, January 27, 1983

XU-167 PATCHWORK BOUTIQUE II 4 Weeks

Prerequisite: None

Thursday, 7 - 10 p.m.

Fee: \$27.00

A continuation of "patchwork" items will include: Seminole quilting, String quilting and Log Cabin. Small projects include casserole covers, stationery holder, eye-glass case, make-up case, Xmas decorations and Tote-bag ready for gift giving.

Commencement date - Thursday, October 21
Thursday, March 3, 1983

**XU-068 PATCHWORK JACKETS
AND VEST 4 Weeks**

Prerequisite: Sewing experience

Monday, 7 - 10 p.m.

Fee: \$37.00

Using patchwork techniques, construct a fashionable lady's collarless jacket and vest.

Commencement date - Monday, October 18
Monday, March 7, 1983

**XRET-205 FASHION
MERCHANDISING 15 Weeks**

(See Business Education Department)

OFFICE HOURS

August 30, 1982 to March 10, 1983
Monday to Thursday - 8:00 a.m. to 8:00 p.m.
Friday - 8:00 a.m. to 4:30 p.m.
December 16, 1982 to January 3, 1983
March 14, 1983 to August 29, 1983
Monday to Friday - 8:00 a.m. to 4:30 p.m.

REGISTRATION FOR THE ABOVE COURSES

FALL — June 3, 1982 - 9:00 a.m. to 4:00 p.m. — resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
WINTER — November 3, 1982 - 9:00 a.m. to 8:00 p.m. — resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

CLOTHING DEPARTMENT

Day Program

SPECIAL NOTE TO CLOTHING APPLICANTS

Techniques taught are an adaptation of industrial techniques to home sewing.

All classes follow a similar format where demonstration of techniques is followed by student work in class. A sewing machine and shared pressing equipment is provided for each student.

Students will be:

- directed by their instructor as to all fabric and patterns
- required to purchase instructional booklets for most courses
- expected to do some homework

Aims of the Clothing Department are to:

1. Show the student how to create a pleasing wardrobe while learning to sew.
2. Construct attractive clothes in a minimum of time with quick techniques.
3. Learn the maximum use of your sewing machine, its operation and care.
4. Be able to select appropriate fabrics, interfacings, notions for each garment.
5. Prepare fabric, cut, mark, stitch and press to maintain grain perfection at all times creating a professional looking garment.
6. Be able to read a commercial pattern and learn about fitting. (Fitting will depend on the level of sewing being taken.)

Applicants should:

1. Specify on their application form the class evening where a choice is offered.
2. State second choice wherever possible.

Every effort will be made to meet these preferences but no guarantee is given. If no preference is given, the applicant will be allotted any class.

The Clothing Department will make every effort to arrange instruction in any related subject area if there is sufficient demand. Groups or individuals should contact:

Clothing Coordinator — 284-8305

or

Department of Continuing Education — 284-8881

GENERAL INTEREST CERTIFICATE

RECOGNITION OF ACHIEVEMENT IN CLOTHING CONSTRUCTION

Students wishing to qualify for the Certificate program must complete each of the following:

1. Clothing I
2. Clothing II
3. Clothing III
4. Tailoring I
5. Drafting to Fit - Bodice
6. Drafting to Fit - Skirts and Pants

and must complete 6 or more option courses (depending on length of course) in the Clothing Department. This represents a total of approximately 300 hours of classes.

Students wishing to qualify for the Certificate program must have a "B" standing or higher.

XDU-009 SEWING ORIENTATION 8 Weeks

Prerequisite: None

Wednesday
9:30 a.m. - 2:15 p.m.

Fee: \$59.00

This course is recommended for the "new-sewer" or beginner. Learn to construct "simple to sew" fashions. Emphasis is placed on handling of fabrics, learning to measure, reading the commercial pattern and developing accuracy in your sewing techniques.

Commencement date - Wednesday, September 15
Wednesday, January 26, 1983
Wednesday, April 13, 1983

XDU-010 CLOTHING I 8 Weeks

Prerequisite: Some sewing experience, not recommended for the beginner

Fee: \$59.00

Clothing I is a basic sewing course for those with sewing experience who would like to improve their skills. (Sewing Orientation is recommended for the beginner.)

Start your basic wardrobe with a skirt and blouse while learning about fabrics and patterns. Grain perfection in cutting, stitching and pressing is stressed to give a professional finish to your garments.

Techniques include: zippers, waistbands, hemming, use of interfacing, collars, sleeves and finishing touches.

It is important that this course be taken as a prerequisite for the more advanced courses. All courses are built on a sequence of learning and Clothing I provides the necessary background.

Commencement date - Tuesday, September 14
Tuesday, January 25, 1983
Tuesday, April 12, 1983

XDU-020 CLOTHING II 8 Weeks

Prerequisite: XU-010 or XDU-010

Wednesday
9:30 a.m. - 2:15 p.m.

Fee: \$59.00

Add to your wardrobe and continue building your sewing skills with more difficult projects in the construction of shirts and ladies' pants.

Techniques include: use of interfacing, shirt collars, yokes, facings, sleeve plackets, cuffs, proper pant construction and ladies' fly front zipper.

Extra projects will be included to finish your outfit.

Commencement date - Wednesday, September 15
Wednesday, January 26, 1983
Wednesday, April 13, 1983

REGISTRATION FOR THE ABOVE COURSES

FALL — June 3, 1982 - 9:00 a.m. to 4:00 p.m. — resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.

WINTER — November 3, 1982 - 9:00 a.m. to 8:00 p.m. — resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.

Check for registration location in your area.

XDU-021 LADIES' JACKETS 8 Weeks

Prerequisite: XU-020 or XDU-020 Wednesday,
or XU-022 or XDU-022 9:30 a.m. - 2:30 p.m.
or advanced sewing experience

Fee: \$86.00

Add to your wardrobe a fashionable lady's jacket.

This course will help the **experienced** sewer *in construction techniques and fitting of a tailored jacket, as well as selection of fabric and interfacing.

Techniques will include facings, interfacing, collars, sleeves, buttonholes, pockets, lining and finishing. A choice of patterns in keeping with the fashion picture will be selected.

Commencement date - Wednesday, September 15
Wednesday, January 26, 1983
Wednesday, April 13, 1983

XDU-022 TAILORING I 8 Weeks
(Ladies' Coats)

Prerequisite: XU-020 or XDU-020 or Tuesday,
advanced sewing 9:30 a.m. - 2:15 p.m.
experience

Fee: \$86.00

The basic principles of ladies' coat construction are covered in this course. The student will make a cotton fitting shell of the coat pattern chosen before proceeding.

Coat construction techniques include bound buttonholes, welt and patch pockets, interfacings, collar application, linings and finishing.

Class size limited.

NOTE: For admission to Tailoring I applicants should complete Clothing II or equivalent.

Commencement date - Tuesday, September 14
Tuesday, January 25, 1983

XDU-030 CLOTHING III 8 Weeks

Prerequisite: XU-020 or XDU-020 and Thursday,
XU-041 or XDU-041 9:30 a.m. - 2:15 p.m.

Fee: \$86.00

This is an advanced sewing course with more emphasis on fitting.

Learn how to use your basic fitting shell, making alterations to a commercial pattern. The student will choose her own pattern and will learn couture finishes and trims.

Instruction on sewing elegant fabrics such as silks and velvets will be included.

NOTE: For admission in Clothing III, applicants must have successfully completed Clothing II and Drafting to Fit - Bodices.

Commencement date - Thursday, September 16
Thursday, April 14, 1983

XDU-041 DRAFTING TO FIT 4 Weeks
(Bodices)

Prerequisite: XU-010 or XDU-010 or Tuesday,
Advanced sewing 9:30 a.m. - 2:15 p.m.
experience

Fee: \$54.00

This course uses the Minott Method of Pattern Fitting to obtain a good fit.

Through the use of exacting body measurements and pattern

adjustments, the student will make a basic bodice pattern, sew a shell for fitting and make the necessary pattern adjustments.

Students will also learn how to adapt this basic pattern to a commercial pattern.

Commencement date - Tuesday, September 21
Tuesday, February 1, 1983

XDU-042 DRAFTING TO FIT 4 Weeks
(Skirts and Pants)

Prerequisite: XU-010 or XDU-010 Tuesday,
or Advanced sewing 9:30 a.m. - 2:15 p.m.
experience

Fee: \$54.00

With the use of exacting measurements and drafting principles, students will adapt a basic commercial skirt and pant pattern to their own personal measurements. This is obtained by using the Minott Method of Pattern Fitting.

Construction of a skirt and pair of pants will be made to test the alterations.

Commencement date - Tuesday, October 26
Tuesday, March 8, 1983

XDU-043 BASIC FLAT 10 Weeks
PATTERN MAKING

Prerequisite: Advanced sewing experience Monday,
and a basic sloper 9:00 a.m. - 12 noon

Fee: \$95.00

This course is an introduction to flat pattern method of designing using a basic dress pattern or sloper. Students will design and draft patterns for two garments using this method.

Practice problems include darts, collars, sleeves, skirts and a sheath dress.

Commencement date - Monday, January 24, 1983

XDU-011 CHILDREN'S CLOTHING 8 Weeks

Prerequisite: XU-010 or XDU-010 Thursday,
or sewing experience 9:30 a.m. - 2:15 p.m.

Fee: \$59.00

Sewing for children can be fun!

This course will help you sew several garments geared to young children. Simple construction techniques on both woven and knit fabrics will include a child's apron, knit or woven pants, T-shirt, and vest.

Commencement date - Thursday, September 16

XDU-012 JEANS AND DENIM WEAR 4 Weeks

Prerequisite: Sewing experience or Tuesday,
XU-010 or XDU-010 9:30 a.m. - 2:30 p.m.
recommended

Fee: \$37.00

Beat the high cost of inflation and learn to construct blue jeans for the whole family. Students will learn how to handle denim fabric and prepare a pair of jeans, and a vest with the "just purchased look".

Commencement date - Tuesday, November 9
Tuesday, March 8, 1983

REGISTRATION FOR THE ABOVE COURSES

FALL — June 3, 1982 - 9:00 a.m. to 4:00 p.m. — resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
WINTER — November 3, 1982 - 9:00 a.m. to 8:00 p.m. — resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

XDU-013 RECREATION SEWING 8 Weeks

Prerequisite: XU-020 or XDU-020
or equivalent
sewing experience

Wednesday,
9:30 a.m. - 2:15 p.m.

Fee: \$59.00

Learn the techniques necessary for making professional looking ski jackets and pants (warm-ups) for the entire family.

Techniques include handling of ski fabrics, linings, zippers, pockets and special feature items.

Commencement date - Wednesday, September 15

XDU-071 KNIT TOPS ONLY 4 Weeks

Prerequisite: XU-010 or XDU-010 or
sewing experience

Thursday,
9:30 a.m. - 2:30 p.m.

Fee: \$37.00

Make knit shirts for all members of your family. Learn basic T-shirt construction with crew neck, set-in sleeve, rolled hem or band. From your basic pattern, make neckline variations such as V-neck, slot neck, high mandarin, zipper front and shawl collar. Fabrics will include T-shirt knits and velours.

Not recommended for beginners.

Commencement date - Thursday, October 28
Thursday, March 10, 1983

XDU-060 DRAPERY 6 Weeks

Prerequisite: Sewing
experience

Tuesday,
9:30 a.m. - 2:30 p.m.

Fee: \$48.00

Learn complete drape making procedures to construct a pair of lined drapes, unlined drapes and a Roman shade.

Procedures include heading types, hem finishes, fabric selection, measuring and hanging, custom pleating. Students may construct these projects for their own window requirements.

Commencement date - Tuesday, September 14
Tuesday, April 12, 1983

XDU-061 ADVANCED DRAPERY AND BEDSPREADS 6 Weeks

Prerequisite: XU-060 or XDU-060

Monday,
9:30 a.m. - 2:30 p.m.

Fee: \$48.00

This course is designed for drapery students who desire assistance in making more difficult and fashionable window coverings such as swags, valances, Austrian sheers, scalloped cafes, etc.

This course also covers: bedspread construction including such techniques as machine quilting, corner finishes, dust ruffles, pillow shams.

Commencement date - Monday, September 13
Monday, January 24, 1983

XDU-067 PATCHWORK BOUTIQUE I 4 Weeks

Prerequisite: None

Thursday, 9:00 a.m. - 12 noon

Fee: \$27.00

Make "patchwork" small items suitable for gifts and bazaars. Items include "String" tea cozy, Folded Star pot holders, soft boxes, fabric frames and decorated baskets.

Commencement date - Thursday, September 16
Thursday, January 20, 1983

XDU-167 PATCHWORK BOUTIQUE II 4 Weeks

Prerequisite: None

Thursday, 9:00 - 12 noon

Fee: \$27.00

A continuation of "patchwork" items will include: Seminole quilting, String quilting and Log Cabin. Small projects include casserole covers, stationery holder, eye-glass case, make-up case, Xmas decorations and Tote-bag ready for gift giving.

Commencement date - Thursday, October 14
Thursday, March 3, 1983

XDU-066 PATCHWORK PROJECTS 4 Weeks

Prerequisite: None

Monday,
9:00 a.m. - 12:00 noon

Fee: \$27.00

For the person wishing to learn simple patchwork designs on small projects that can be completed in a short time.

Demonstrations include Comforter, Cushion, Tote or Bunting Bag made from squares. Fabric scraps may be used for placemats, potholders, etc. Designs of Colonial Patch, Rail Fence, Log Cabin, Crazy Quilt and Bisquet Puff will be taught.

Machine sewing and tying (tufting) enable these projects to be quickly accomplished.

Commencement date - Monday, September 27

OFFICE HOURS

August 30, 1982 to March 10, 1983

Monday to Thursday - 8:00 a.m. to 8:00 p.m.

Friday - 8:00 a.m. to 4:30 p.m.

December 16, 1982 to January 3, 1983

March 14, 1983 to August 29, 1983

Monday to Friday - 8:00 a.m. to 4:30 p.m.

REGISTRATION FOR THE ABOVE COURSES

FALL - June 3, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.

WINTER - November 3, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.

Check for registration location in your area.

COMMUNICATION ARTS DEPARTMENT

XENGL-121 WRITING FUNDAMENTALS 12 Weeks

Credit

Prerequisite: Good general knowledge of English Tuesday, 6:30 - 9:30 p.m.

Fee: \$70.00

The objective of this course is to develop the skills and knowledge required to write correctly and effectively.

Topics covered in this course are: mechanics of writing, basic language terms, the three basic types of prose - description, argumentation, and exposition, vehicles used in writing - the letter, the article, the essay and the short report.

Textbook approx. \$10.00.

This course is equivalent to English 121 offered to day programs. It is not English as a second language.

Commencement date - Tuesday, September 7
Tuesday, January 11, 1983

XENGL-122 INTRODUCTORY REPORT WRITING 12 Weeks

Credit (A.S.E.T.)

Prerequisite: Good general knowledge of English Tuesday, 6:30 - 9:30 p.m.

Fee: \$70.00

This course acquaints the student with various shortform reports such as investigation, recommendation, progress and periodical reports used in business and industry.

- i. Basic patterns of expository writing.
- ii. Types of short reports: letter reports, survey reports, research reports, project reports, etc.
- iii. Selection and evaluation of data.
- iv. Arrangement and presentation of data including prose style elements, documentation, formats, visual information, editing.

This course is equivalent to English 122 offered to day programs.

Commencement date - Tuesday, September 7
Tuesday, January 11, 1983

XENGL-123 ADVANCED REPORT WRITING 12 Weeks

Credit

Prerequisite: Good general knowledge of English Monday, 6:30 - 9:30 p.m.

Fee: \$70.00

This course offers the student the experience of preparing the long formal report used in business and industry. It may be a library research oriented report or project report. Subject matter of the report is based on some aspect of the student's shop, laboratory or field work. The workshop writing approach is used, wherein the instructor guides the student step by step through the stages of developing the necessary research and documentation prior to designing and actually writing the report.

- i. Proposal, Progress Report, Letter of Transmittal.
- ii. Long Report Format - Types, Parts of Report.
- iii. Selection and Evaluation of Data.
- iv. Arrangement and presentation of data, including prose

style elements, expository techniques, documentation, visual information, editing.

This course is equivalent to English 123 offered to day programs.

Commencement date - Monday, September 13
Monday, January 10, 1983

XENGL-126 EFFECTIVE BUSINESS LETTER WRITING 12 Weeks

Credit

Prerequisite: Good general knowledge of English Tuesday, 6:30 - 9:30 p.m.

Fee: \$70.00

This course develops skills in writing effective letters used in business and industry.

Materials covered include a review of English grammar; sentence and paragraph construction; format; key components of all effective letters; an analysis of the more popular letters used - inquiry, order, credit, collection, claim, adjustment, sales, and job-application.

Textbook approx. \$10.00.

This course is equivalent to English 126 offered to day programs.

Commencement date - Tuesday, September 7
Tuesday, January 11, 1983

XENGL-143 SPEECH I 12 Weeks

Credit (A.S.E.T.)

Prerequisite: Good general knowledge of English Monday, 7 - 10 p.m.

Fee: \$70.00

To develop the oral communication skills in the student.

Material covered includes studying the communication process, analyzing the audience, preparing various types of short speeches, mastering an effective platform manner, delivering the short talk, developing listening skills, chairing a meeting.

This course is equivalent to English 143 offered to day programs.

Commencement date - Monday, September 13
Monday, January 10, 1983

XENGL-160 EFFICIENT READING 12 Weeks

Credit

Prerequisite: Good general knowledge of English Tuesday, 6 - 9 p.m.

Fee: \$70.00

The aim of the course is to develop vocabulary and improve reading rate and comprehension.

- i. Analysis of student's present reading ability and needs.
- ii. Theory and practice to develop skills in the following types of reading:
 - (a) skimming to get the main ideas and general content.
 - (b) study-type reading
 - (c) analytical reading
- iii. Theory and practice to vary reading speed so that the maximum efficiency is obtained for the type of material handled.
- iv. Analysis of student's reading ability at end of course.

This course is equivalent to English 160 offered to day programs.

Commencement date - Tuesday, September 7
Tuesday, January 11, 1983

REGISTRATION FOR THE ABOVE COURSES

FALL - June 1, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
WINTER - November 1, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

XENGL-200 INTERPERSONAL AND 15 Weeks GROUP COMMUNICATION

Credit

Prerequisite: None

Wednesday, 7 - 10 p.m.

Fee: \$86.00

This course is designed to develop understanding and skills in interpersonal and group communication.

Topics covered in this course include an overview of the communication process, perception and self-concept as part of an individual's communication system, basic communication skills such as listening and message construction, nonverbal communication skills, reducing communication barriers, interpersonal influence and small group communication.

This course is equivalent to Journalism Arts 280 offered for credit in the Ad Sales day program.

May be taken as an option in the Business Education Certificate Program.

Commencement date - Wednesday, September 8

Wednesday, January 12, 1983

NON-CREDIT COURSES

XENGL-011 EFFECTIVE WRITING 12 Weeks

Prerequisite: Alberta Grade XI
English

Monday, 7 - 10 p.m.

Fee: \$70.00

This course for beginning writers explains how to write clear and interesting short articles. It is for people who must write as part of their vocation or avocation.

It is a general introductory course in expository writing, the type of writing that makes up 95% of daily communication. The course offers a down-to-earth approach to writing that has real application for businessmen, tradesmen, engineers, teachers, housewives, students. In short it is for anyone who has something to write about and wants to learn the most effective way to do it.

Although this is not primarily a course in short fiction writing, business letter writing, or report writing, the principles and writing techniques covered will prove useful in these specialty writing areas.

Commencement date - Monday, September 13

Monday, January 10, 1983

XENGL-111 ENGLISH AS A 10 weeks SECOND LANGUAGE

Prerequisite: A working knowledge of English

Monday and Thursday, 6 - 9 p.m.

Fee: \$113.00

An advanced class for students whose first language is not English and who intend on entering a post-secondary institution such as SAIT. It is designed to help develop a more extensive vocabulary, spelling improvement, writing and organizing sentences and paragraphs.

Individuals with a limited background in the English language should not apply.

Textbook approximately \$15.00.

Commencement date - Monday, October 4

Monday, January 10, 1983

XENGL-211 FICTION WRITING - 12 Weeks A REALISTIC APPROACH

Prerequisite: Some Writing
experience preferred

Wednesday,
6:30 - 9:30 p.m.

Fee: \$70.00

A course for students prepared to accept the discipline of writing every day. Emphasis will be on story telling, not literature. Students will write a piece of fiction in a disciplined, methodical manner for a realistic market. Organization and approach will be the main subject of lectures and readings. Group discussions of work in progress is planned.

Textbook cost approximately \$7.50.

Commencement date - Wednesday, September 8

Wednesday, January 5, 1983

XENGL-212 FREELANCE WRITING 10 Weeks

Prerequisite: None

Thursday, 7 - 10 p.m.

Fee: \$73.00

The purpose of this course is to introduce beginning writers to the techniques of feature writing for the freelance market. Classes will be a combination of lectures and actual writing saleable articles.

The course will deal with finding and developing feature ideas. It will also discuss specific markets for beginning writers with particular emphasis on writing for small magazines and trade publications.

Commencement date - Thursday, September 16

Thursday, January 13, 1983

OFFICE HOURS

August 30, 1982 to March 10, 1983

Monday to Thursday - 8:00 a.m. to 8:00 p.m.

Friday - 8:00 a.m. to 4:30 p.m.

December 16, 1982 to January 3, 1983

March 14, 1983 to August 29, 1983

Monday to Friday - 8:00 a.m. to 4:30 p.m.

REGISTRATION FOR THE ABOVE COURSES

FALL - June 1, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.

WINTER - November 1, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.

Check for registration location in your area.

RADIO AND TELEVISION

XTSR-003 RADIO (AND PUBLIC) ANNOUNCING 12 Weeks

Prerequisite: Good general knowledge of English both written and spoken

Tuesday, 7 - 10 p.m.

Fee: \$70.00

The aim of this program is to acquaint the interested student with the various fundamental aspects of announcing.

The student will learn the terminology of broadcasting, voice production as well as microphone technique. Topics covered will include: reading exercises, breathing, narrative and descriptive reading interpretation, recognition of correct speech by sight and sound, phonetic markings, commercial pacing and characterization, news formats and newscasting, and announcing techniques.

Commencement date - Tuesday, September 7
Tuesday, January 11, 1983

XTSR-004 TECHNICAL TELEVISION PRODUCTION 12 Weeks

Prerequisite: Basic electronic or industrial experience preferred

Wednesday, 6:30 - 9:30 p.m.

Fee: \$70.00

The aim of this course is to provide an opportunity for technically oriented people in the Education, Advertising, and Electronics fields to study the equipment and production concepts utilized when planning, installing and operating a quality TV production facility. The course is basically designed to give a technical "behind the scenes" view of television production.

- i. Monochrome camera operation.
- ii. Color camera operation.
- iii. Color telecine and projection equipment.
- iv. Video tape recorders; quadrature (broadcast quality), helical scan.
- v. Switching systems.
- vi. Lighting.
- vii. Audio systems and mixing.
- viii. System layout criteria.
- ix. Simulated operations and projects.

Commencement date - Wednesday, September 8

XTSR-006 MOVIE-MAKING I 12 Weeks

Prerequisite: None

Monday, 6:30 - 9:30 p.m.

Fee: \$113.00

This program for beginning filmmakers explores the basics of motion picture production. It includes camera functions and operation, basic editing techniques, storyboard layout, organization and terminology.

Program content will include projects on the basics of motion picture photography, exposure, depth of field, focus shifts, in-camera editing and shot continuity in the production of a short single concept film.

Editing facilities, cameras and B&W processing will be provided. Students must provide their own 16mm B&W film.

Commencement date - Monday, September 20

XTSR-007 MOVIE-MAKING ADVANCED 12 Weeks

Prerequisite: Instructor's permission

Monday, 6:30 - 9:30 p.m.

and 7 hours to be determined by instructor

Fee: \$131.00

This program is designed for serious amateurs and those interested in learning professional procedures and techniques in filmmaking.

Much of class time will consist of group and individual project work and evaluation. In-class projects will be done in the 16mm format, with cameras and B&W processing provided. Students must provide their own B&W film and sound stocks.

Commencement date - Monday, January 17, 1983

XTSR-009 RADIO PROGRAMMING & PRODUCTION TECHNIQUES 12 Weeks

Prerequisite: General interest in broadcast equipment operation

Thursday, 7 - 10 p.m.

Fee: \$70.00

This program is designed to familiarize the students interested in broadcasting with the operation of studio consoles, reel to reel and cartridge tape machines, etc. To learn the skills of mechanical and electronic editing and produce your own musical program and commercial announcements.

Commencement date - Thursday, September 9
Thursday, January 13, 1983

XTSR-010 SOUND RECORDING 12 Weeks

Prerequisite: None

Thursday, 7 - 10 p.m.

Fee: \$113.00

An introduction to sound recording with actual recording and mixdown sessions. Students may invite small musical groups to participate. Each student may retain a permanent copy of the sessions of his or her own tape. Sound theory discussions will cover mike choice and placement, acoustic isolation, operation of audio consoles and operation of multi-channel recorders.

Each student will supply his own 7" reel of 1/4" mastering tape.

Commencement date - Thursday, September 16
Thursday, January 13, 1983

REGISTRATION FOR THE ABOVE COURSES

FALL - June 1, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
WINTER - November 1, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

XTSR-011 PORTABLE VIDEO-TAPE 12 Weeks
PRODUCTION

****ELECTRONIC FIELD PRODUCTION****
****ELECTRONIC NEWS GATHERING****

Prerequisite: None Tuesday, 6:30 - 9:30 p.m.
Fee: \$113.00

This course is designed to make you a more effective user of portable video-tape equipment. Each student is given the opportunity to script, shoot and edit a short production. Although $\frac{3}{4}$ " semi-professional equipment is used, the techniques taught apply to everything from broadcast ENG/EFP to industrial, school and home video recording. Short lectures cover: camera techniques, light techniques, comparative advantages of film and tape, developing a script, and other topics.

Students who purchase a video-tape cassette may use it to keep a copy of their finished productions. (Approximate cost \$25.00).

Commencement date - Tuesday, September 7
Tuesday, January 11, 1983

XTSR-012 SCRIPT DEVELOPMENT 12 Weeks
FOR TELEVISION

Prerequisite: A working knowledge Tuesday,
of the English language, 7 - 10 p.m.
and previous experience,
skill and competence
in the written word

Fee: \$70.00

This 12 week course will consist of the basics in the development of scripts for Television.

The areas of commercial, documentary research, and shooting scripts for E.N.G. and film will be covered.

The first 4 weeks will take the student into the T.V. studio, enabling them to become familiar with the equipment involved, and the processes used in presenting T.V. fare.

The writer must understand the media he or she is writing for and what equipment can do to enhance the presentation.

During the remaining 8 weeks, concentration will be placed on the development of scripts for Documentary, Commercial, and Dramatic formats.

Commencement date - Tuesday, September 7

XTSR-013 TELEVISION 12 Weeks
PRODUCTION LAB

Prerequisite: None Tuesday or Thursday,
6:30 - 9:30 p.m.
Fee: \$70.00

An introduction to television studio and control room techniques and equipment. Students will be given demonstrations and exercises on equipment. They will then participate as crew members in the production of programs, commercials and newscasts. The emphasis is on hands-on training. Each student will try each position at least once.

Commencement date - Tuesday, September 7
Thursday, September 9

XTSR-014 ADVANCED TELEVISION 18 Weeks
PRODUCTION LAB

Prerequisite: XTSR-013 or XTSR-012 or Wednesday,
related experience 6:30 - 9:30 p.m.
Fee: \$167.00

The purpose of this course is to provide greater insight and experience into T.V. Production techniques, at an advanced level. After a review of basic techniques students will be involved (in a hands-on situation) in the execution of:

Production and VTR A plus B roll editing for commercials. Music production with simulated or small group studio presentations. News preparation, formats, and presentation. Video tape editing techniques. Panel and guest set ups and productions. E.N.G. small format shooting. Station operations. Research and writing for documentary formats.

Commencement date - Wednesday, January 5, 1983

OFFICE HOURS

August 30, 1982 to March 10, 1983
Monday to Thursday - 8:00 a.m. to 8:00 p.m.
Friday - 8:00 a.m. to 4:30 p.m.
December 16, 1982 to January 3, 1983
March 14, 1983 to August 29, 1983
Monday to Friday - 8:00 a.m. to 4:30 p.m.

REGISTRATION FOR THE ABOVE COURSES

FALL - June 1, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
WINTER - November 1, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

LIBRARY ARTS

PROGRAM DESCRIPTION

The Library Arts program at SAIT is an 1800 hour program leading to a Diploma of Applied Arts. Graduates of the program usually find employment as library technicians.

The evening courses listed below will appeal to individuals currently working in libraries and to individuals considering pursuing the full program. The term "credit" in the course listings below means these courses can be applied towards a diploma should a student wish to complete the full diploma program.

The day section of the program is normally completed in two years, although it is possible to enroll in selected courses in the day section as a special student without enrolling in the full program. For further information on the full program, special student status or the evening courses listed below, contact the Library Arts Program Supervisor at 284-8328.

The distance education section of the program is an outreach operation that uses a variety of educational delivery systems to provide training for individuals unable to enter the day section or to enroll in evening courses. Four credit courses are available as individualized learning packages for home-study: LA-120, Introduction To Libraries; LA-124, Arrangement of Materials I; LA-232, Public Relations; and ENGL-121, Writing Fundamentals. Other courses are currently under development. Contact the Library Arts Distance Education Coordinator at 284-8366 for further information on these four courses or on instructor-delivered courses in rural areas.

XLA-001 INFORMATION RETRIEVAL 10 Weeks IN SCIENCE AND TECHNOLOGY

Credit

Prerequisite: Library experience or Grade XII Science

Wednesday, 7:00 - 10:00 p.m.

Fee: \$59.00

This course is designed to familiarize the student with the literature of science and technology. The student will learn how to search for information in these areas through the literature indexes and other types of library materials. The course material is approached (1) By subject and (2) By type of literature. There will be compulsory assignments designed to give the student practice in using scientific and technical literature. The course will be highly relevant to those providing reference services in special libraries or those engaged in research in any of the areas of science and technology.

Information Retrieval in Science and Technology involves extensive out-of-class time for examining reference material and completing reference search assignments.

No textbook required.

This subject will be accepted as a Second Year, Spring Quarter, library elective in the day section.

Commencement date - Wednesday, September 29

XLA-002 SO YOU HAVE TO RUN 10 Weeks A LIBRARY

Non-credit

Prerequisite: None

Monday, 6:30 - 9:30 p.m.

Fee: \$59.00

This course is designed for the nonprofessional or nontechnical person working in a library which serves a limited clientele or whose collection is limited in format or subject matter. The course will involve both basic theory and practical application of skills.

The exact nature of the course will depend upon the needs of the students who register. Topics which might be included in the course are collection development, magazine and periodical collections, cataloging and classification, reference materials, public relations, circulation systems, special collections, organizing nonprint materials, collection weeding, interlibrary loans, types of libraries and library organization.

Recommended textbook \$11.70.

Commencement date - Monday, October 4
Monday, January 24, 1983

XLA-120 INTRODUCTION TO 10 weeks LIBRARIES

Credit

Prerequisite: None

Thursday, 7 - 10 p.m.

Fee: \$59.00

An examination of different types of libraries, library organization and personnel, and library processes. Students will also study library catalogues and some basic reference tools in order to become better library users. Library tours will be included with a look at some behind-the-scenes operations.

Individuals without any library work experience are strongly recommended to take this introductory course before enrolling in any other Library Arts courses.

This course is equivalent to LA-120 offered in the day section.

Textbook not required.

Commencement date - Thursday, October 7
Thursday, January 20, 1983

XLA-123 ACQUISITIONS 16 Weeks

Credit

Prerequisite: Introduction to Libraries (XLA-120) or Library experience - one year working in a library under a library technician or professional librarian. Otherwise, permission of Program Supervisor of Library Arts is required.

Fee: \$91.00

This course presents the methods libraries use to obtain books, pamphlets, periodicals and government publications. Other methods of acquiring library materials such as gifts, exchanges, deposits and interlibrary loans are also included. Students will study selection and bibliographic tools and will learn the techniques of bibliographic searching. Order preparation, receiving procedures as well as the requisite records and files will be examined. An introduction to the publishing industry and automated acquisitions procedures will also be included.

Acquisitions involves extensive out-of-class time for bibliographic searching assignments.

No textbook required.

This course is equivalent to LA-123 offered in the day section.

Commencement date - Wednesday, January 12, 1983

REGISTRATION FOR THE ABOVE COURSES

FALL - June 1, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.

WINTER - November 1, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.

Check for registration location in your area.

GRAPHIC ARTS

XGA-100

OFFSET PRESS OPERATION

4 Weeks

Prerequisite: None

Saturday, 8 a.m. - 3 p.m.

Fee: \$77.00

The objective of this course is to produce operators for duplicating equipment. It enables the participant to achieve this objective by:

- understanding the functions of the press
- developing operator skills
- performing and understanding operator adjustments and maintenance
- trouble-shooting for process and mechanical problems.

This will be accomplished by using the Itek 960 and A-M 1250 duplicators.

NOTE: This class will be limited to 10 students.

Commencement date - Saturday, October 2
Saturday, January 15, 1983

XGA-101

BASICS OF OFFSET PRINTING

6 Weeks

Prerequisite: None

Saturday, 8 a.m. - 3 p.m.

Fee: \$113.00

This course is based on the student having no previous experience in graphic communications, therefore will concentrate on the basics of printing. As a result of the course the student will experience the basic elements of work performed by people in representative occupations of graphic communications; produce a completed printed product; work cooperatively and safely in the active climate of the graphic communications laboratory; be exposed to the technical language of printing.

Time will be divided as follows: 12 hours in typesetting; 12 in camera and pre-press; and 12 in press operation. Topics include: artwork, image assembly; layout, paste-up and typesetting; camera operation and dark room procedures, P.M.T. systems; stripping, platemaking, image transfer; press operation and off-set principles and procedures; bindery. Supplies will cost approximately \$25.00.

NOTE: This class will be limited to 10 students.

Commencement date - Saturday, November 6
Saturday, February 19, 1983

XGA-102

GRAPHICS CAMERA WORK

5 Weeks

Prerequisite: Employed

Saturday, 8 a.m. - 3 p.m.

in printing industry or
graphics experience

Fee: \$95.00

Topics include: Film — orthochromatic, panchromatic; contact and duplicating; filters and their uses, cameras, lighting, copy (line and half-tone), darkroom procedures, making halftone exposures, screens, and PMT systems.

Upon completion of the course the student should be able to produce a line or halftone negative in a printing shop darkroom.

NOTE: This class will be limited to 10 students.

Commencement date - Saturday, October 2
Saturday, January 15, 1983

XGA-103

PHOTOTYPESETTING I

4 Weeks

Prerequisite: 30 w.p.m. typing

Saturday, 8 a.m. - 3 p.m.

Fee: \$77.00

An introduction to phototypesetting terminology, mark-up, formatting, copyfitting and hands-on operation of direct input phototypesetters and mini-disk terminals as well as paper tape input. Typesetters used will be ACM 9000 and Comp/Set 3510.

Upon completion of the course the student should be able to mark-up, copyfit and typeset text as well as more advanced mixed ad composition.

NOTE: This will be limited to 10 students.

Commencement date - Saturday, October 2

XGA-104

PHOTOTYPESETTING II

4 Weeks

Prerequisite: Phototypesetting I

Saturday, 8 - 3 p.m.

Fee: \$77.00

This will be an extension to Phototypesetting I as outlined in the description for XGA-103. This will be more advanced in nature but will allow the student to become more familiar with keyboarding and phototypesetter operation to a greater degree of comprehension and experience to build confidence and operating skills.

Upon completion of the course the student should be more capable in the mark-up, copyfitting and typesetting skills.

NOTE: This will be limited to 10 students.

Commencement date - Saturday, January 15, 1983

OFFICE HOURS

August 30, 1982 to March 10, 1983

Monday to Thursday - 8:00 a.m. to 8:00 p.m.

Friday - 8:00 a.m. to 4:30 p.m.

December 16, 1982 to January 3, 1983

March 14, 1983 to August 29, 1983

Monday to Friday - 8:00 a.m. to 4:30 p.m.

REGISTRATION FOR THE ABOVE COURSES

FALL — June 1, 1982 - 9:00 a.m. to 4:00 p.m. — resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.

WINTER — November 1, 1982 - 9:00 a.m. to 8:00 p.m. — resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.

Check for registration location in your area.

CULINARY ARTS DEPARTMENT

XCC-010 BASIC COOKING 10 Weeks

Prerequisite: None Tuesday, 7 - 10 p.m.

Fee: \$95.00

This course is intended for brides and other beginners who have limited knowledge and experience in cooking preparation methods and procedures. The instruction will be presented through lectures. No examination will be given and no transcripts will be issued.

Commencement date - Tuesday, September 14
Tuesday, January 25, 1983

XCC-011 CULINARY ARTS I 8 Weeks

Prerequisite: None Wednesday or Thursday,
6:30 - 9:30 p.m.

Fee: \$77.00

This course will demonstrate advanced home cooking techniques to homemakers who like to entertain. The emphasis in these sessions will be on the production of foods such as: classic appetizers; fish courses; meat dishes; seafood, vegetable dishes and flaming desserts.

This is a lecture and demonstration course. All dishes are displayed to, and tasted by, the students. No examination will be given and no transcripts will be issued.

Commencement date - Wednesday, October 20
Thursday, October 21
Wednesday, January 26, 1983
Thursday, January 27, 1983

XCC-012 CULINARY ARTS II 8 Weeks

Prerequisite: None Wednesday or Thursday,
6:30 - 9:30 p.m.

Fee: \$77.00

This is a course basically designed to demonstrate various methods used in the preparation and eye-appealing presentation of foods. The student becomes oriented with special cuts of meat and cooking techniques used with meat, vegetables and extender dishes.

Since the course consists of lectures and demonstrations only, there will be no class participation. However, all the dishes prepared are displayed to, and tasted by, the students. No examination will be given and no transcripts will be issued.

Course content will include: soups; fish dishes; roasts; grilled or broiled meat dishes; unusual poultry dishes; hot and cold garnishes; extenders; potato and vegetable dishes; special meat cuts; specialties of European countries.

Commencement date - Wednesday, September 29
Thursday, September 30
Wednesday, January 26, 1983
Thursday, January 27, 1983

XCC-013 MICROWAVE COOKING 5 Weeks

Prerequisite: None Monday or Wednesday,
6:30 - 9:30 p.m.

Fee: \$50.00

This program has been designed to assist the progressive home maker to work more effectively with the microwave oven. The program consists of lecture and demonstration only, excluding class participation. However all the dishes prepared

are displayed to and tasted by the students. No examination will be given and no transcript issued.

The lectures will cover the How and Why with a run down on different types and makes of microwave ovens.

Demonstrations will include yeast goods, quick breads, egg dishes, luncheon items, starters, main courses, vegetables and desserts.

Commencement date - Monday, September 13
Wednesday, September 8
Monday, October 25
Wednesday, October 27
Tuesday, January 11, 1983
Thursday, January 6, 1983
Monday, February 14, 1983
Wednesday, February 16, 1983

XCC-033 ADVANCED MICROWAVE COOKING 8 Weeks

Prerequisite: A Basic Microwave Course Thursday (Fall) or
Monday or Wednesday (Winter),
6:30 - 9:30 p.m.

Fee: \$77.00

This program is designed to demonstrate selected methods of microwave cooking. The program consists of lectures and demonstrations only excluding class participation. However, all dishes prepared are displayed then tasted by the students. The course will include: soups, main courses, desserts, starters, and vegetables.

No examination will be given and no transcript issued.

Commencement date - Thursday, September 9
Monday, January 10, 1983
Wednesday, January 12, 1983

XCC-014 COMMERCIAL COOKING 24 Weeks

Prerequisite: Commercial Tuesday, 7 - 10 p.m.
cooking experience

Fee: \$221.00

This course contains much of the information required for the journeyman cook qualification examination required by the Department of Labour. Students having three years practical experience are eligible to write.

The course will include: abbreviations; volume measures; menu and cookery terms; menu planning; purchasing raw materials; cold appetizers; hot appetizers; stocks and soups; beef and veal dishes; sauces; methods of cooking chicken; fish and fish dishes; cooking less tender meats; marinating and curing meats; spices and herbs; rotation cooking; cooking vegetables; portion control; potato dishes; game dishes and accompaniments; salads; hot buffet food items; discussion on buffet set up, food required, possible themes; pastas/rice; egg preparations, meat inspection/grading; wholesale cuts; garnishing and decorating cold buffet items; rolls and bread; hot, cold and flaming desserts.

This is basically a lecture and demonstration course.

Approximate textbook cost \$42.00.

Commencement date - Tuesday, September 7

REGISTRATION FOR THE ABOVE COURSES

FALL - June 1, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
WINTER - November 1, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

XCC-015 BARBECUE CUISINE 8 Weeks

Prerequisite: None

Monday and Wednesday,
6:30 - 9:30 p.m.

Fee: \$77.00

This course has been developed to improve the knowledge and techniques of persons interested in barbecuing.

Among the topics covered are:

1. Recognition of suitable meatcuts for barbecuing.
2. B.Q. marinades.
3. Salads and dressings, vegetables and potatoes.
4. Barbecuing a good variety of: beef, pork, chicken dishes, fish and lamb.

Special B.Q. techniques and firemanship for charcoal fires. This is strictly a B.Q. course of demonstration and lecturing, no exams are given, and no transcripts will be issued.

Commencement date - Monday, September 13
Wednesday, September 15
Monday, February 28, 1983
Wednesday, March 2, 1983

XCC-016 INTERNATIONAL CUISINE 8 Weeks

Prerequisite: None

Monday, 6:30 - 9:30 p.m.

Fee: \$77.00

This program is designed to demonstrate selected methods of cooking and presenting specialty foods of various nations. The emphasis will be on the foods and classical dishes of the following countries: Spain, Germany, France, Italy, etc.

There will be no student participation, but the students will be permitted to taste all food dishes prepared in the class. As this is strictly a course of lecturing and demonstrating, no exams are given and no transcripts will be issued.

Commencement date - Monday, September 13
Monday, January 10, 1983

XCC-017 CHINESE CUISINE 12 Weeks

Prerequisite: None

Monday or Tuesday or
Wednesday or Thursday, 7 - 10 p.m.

Fee: \$113.00

Basic Chinese Cuisine featuring authentic food dishes. The instruction consists of lectures and demonstrations with limited class participation. All food prepared will be presented for tasting and evaluation. Included in the program will be instruction on proper use of chop sticks, use of Chinese cleaver, special seasoning and sauces, meal planning and the use of leftover foods.

No examination will be given, and no transcripts will be issued.

Commencement date - Monday, September 13
Tuesday, September 7
Wednesday, September 8
Thursday, September 9
Monday, January 10, 1983
Tuesday, January 11, 1983
Wednesday, January 12, 1983
Thursday, January 13, 1983

XCC-019 ITALIAN CUISINE 8 Weeks

Prerequisite: None

Tuesday, 6:30 - 9:30 p.m.

Fee: \$77.00

This program is designed to demonstrate selected methods of cooking and presenting Italian Specialty from various Provinces

of Italy, also will demonstrate the method of making Homemade spaghetti, noodles, lasagna. Meat, poultry, fish, some soups, sauces, desserts.

There will be no student participation, but the students will be permitted to taste all food dishes prepared in the class. As this is strictly a course of lecturing and demonstrating no exams are given and no certificates issues.

Commencement date - Tuesday, September 7
Tuesday, January 11, 1983

XCC-018 BASIC MEAT CUTTING 8 Weeks

Prerequisite: None

Tuesday, 6:30 - 9:30 p.m.
or Wednesday, 7 - 10 p.m.

Fee: \$89.00

This course is intended to assist homemakers and others in gaining some knowledge of basic meat cutting procedures. It will consist of lectures and demonstrations, with considerable class participation. No examination will be given and no transcripts will be issued.

Among the topics covered are: theory of meat; beef grading; description and uses of retail and wholesale cuts; cutting of beef, veal, lamb and pork; trussing of poultry; filleting of fish; preparation and wrapping for freezing; selection and sharpening of butcher knives.

Commencement date - Tuesday, September 7
Wednesday, September 8
Tuesday, January 4, 1983
Wednesday, January 5, 1983

XCC-050 FOOD SERVICE MANAGEMENT 4 Weeks

Prerequisite: None

Tuesday and Thursday,
6:30 - 9:30 p.m.

Fee: \$77.00

This course is intended to give people connected with (restaurant) Food Service Management, or those thinking of going into the restaurant business, a better understanding of: food costing, wage and cost controls, menu planning, purchasing, receiving and storage methods, Provincial sanitation controls, banquet and party catering, and kitchen planning and design.

Commencement date - Tuesday, September 14
Tuesday, January 11, 1983

XCB-013 CAKE DECORATING I 8 Weeks

Prerequisite: None

Monday or Wednesday,
6:30 - 9:30 p.m.

Fee: \$89.00

This course is offered to those who wish to learn the techniques and methods used in all types of cake finishing and decorating.

The following will be emphasized: Filling, icing, doll cakes, birthday cakes, petit fours, anniversary and wedding cakes, borders, writing, printing, sugar molds, roses, daisies, sweet peas, and selecting colour combinations.

This course is a demonstration and participation course. No examination will be given and no transcripts will be issued.

The cost of decorating set for each student will be approximately \$12.00.

Commencement date - Monday, September 13
Wednesday, September 15
Monday, January 10, 1983
Wednesday, January 12, 1983

REGISTRATION FOR THE ABOVE COURSES

FALL - June 1, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
WINTER - November 1, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

XCB-023 CAKE DECORATING II 8 Weeks

Prerequisite: XCB-013 or Thursday, 6:30 - 9:30 p.m.
Commercial Baking experience

Fee: \$89.00

This course will include the following topics: coating with royal icing; advanced borders and line work; writing; run out work; cake designing; flower piping; flower and animal modelling; sugar and gum paste molding; built up network.

No examination will be given and no transcripts will be issued.

Commencement date - Thursday, September 16
Thursday, January 13, 1983

XCB-014 MODERN BAKING I 8 Weeks

Prerequisite: None Monday or Wednesday, 6:30 - 9:30 p.m.

Fee: \$77.00

This course has been designed to assist homemakers interested in learning new methods in simple and fancy baking.

The training will consist of lectures, demonstration and class participation.

Topics will cover items such as: bread and buns, sweet dough products, Danish pastry, puff paste, pies, cream puffs and eclairs, cakes and fruit flans.

No examination will be given and no transcripts will be issued.

Commencement date - Monday, September 13
Wednesday, September 15
Monday, January 10, 1983
Wednesday, January 12, 1983

XCB-024 MODERN BAKING II 8 Weeks

Prerequisite: XCB-014 Tuesday or Thursday, 6:30 - 9:30 p.m.

Fee: \$77.00

This course is a continuation of Modern Baking I and its objectives are:

- a) to further the knowledge of a large variety of fancy pastries for every occasion by practical participation.
- b) the enjoyment of family and parties.

Commencement date - Tuesday, September 14
Thursday, September 16
Tuesday, January 11, 1983
Thursday, January 13, 1983

XCB-015 PARTY BAKING FOR HOME ENTERTAINING 10 Weeks

Prerequisite: None Tuesday or Thursday,
6:30 - 9:30 p.m.

Fee: \$110.00

These courses have been designed to assist homemakers interested in learning new methods and shortcuts in Party Baking for Home Entertaining.

Training will consist mainly of class participation, some demonstrations.

Items in the pre-Christmas Class covered are: Christmas ideas, centre pieces, French Pastries, Shortbreads, Savoury items, Sausage rolls, cheese puffs, gingerbread houses.

Items in the pre-Easter Class covered are: Easter breads, Black Forest Cake, meringues, doughnuts, hard and soft party rolls, pizza and sugar work.

No recipe books, tools or equipment are required for these courses.

No examination will be given and no certificates will be issued.

Commencement date - Tuesday, September 14
Thursday, September 16
Tuesday, January 11, 1983
Thursday, January 13, 1983

XCB-016 COMMERCIAL BAKING 12 Weeks

Prerequisite: Bakers with Monday and Wednesday,
3 years experience 7 - 10 p.m.

Fee: \$221.00

This course is designed for Bakers presently employed in the baking industry with a minimum practical experience of four years.

The course will consist of two-thirds Theory of Food and one-third Practical knowledge with everyone participating.

This also includes working with the Metric system. The curriculum contains much of the theoretical information required for the Journeyman examination.

Commencement date - Monday, March 7, 1983

OFFICE HOURS

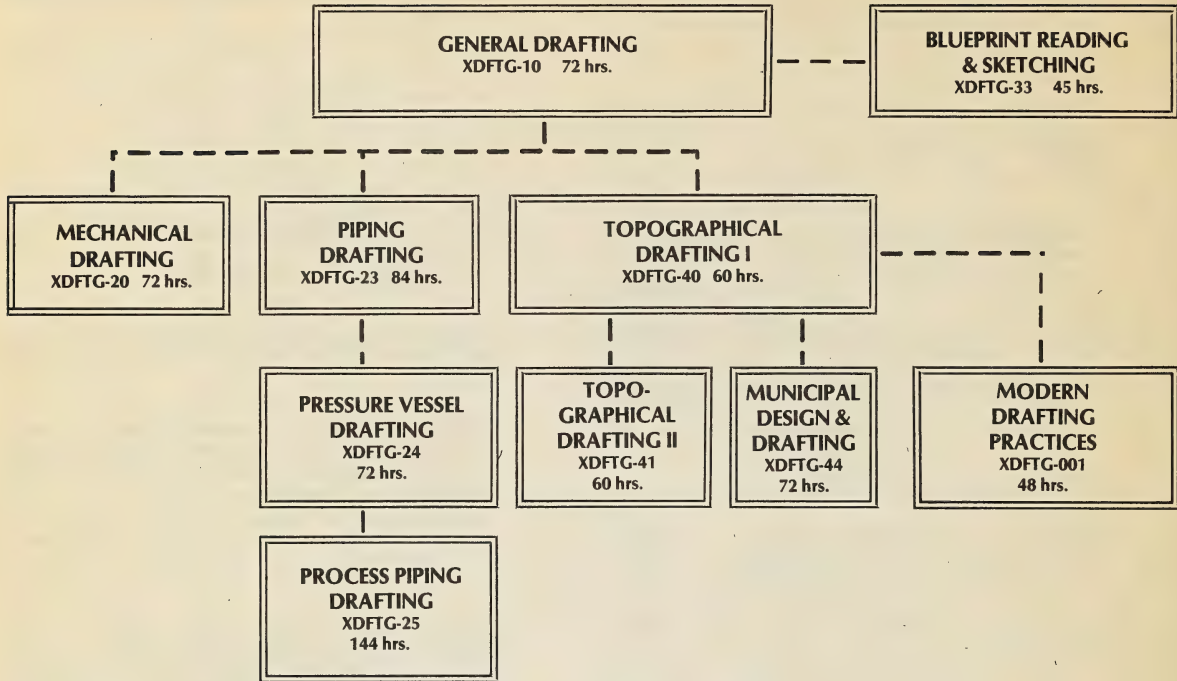
August 30, 1982 to March 10, 1983
Monday to Thursday - 8:00 a.m. to 8:00 p.m.
Friday - 8:00 a.m. to 4:30 p.m.
December 16, 1982 to January 3, 1983
March 14, 1983 to August 29, 1983
Monday to Friday - 8:00 a.m. to 4:30 p.m.

REGISTRATION FOR THE ABOVE COURSES

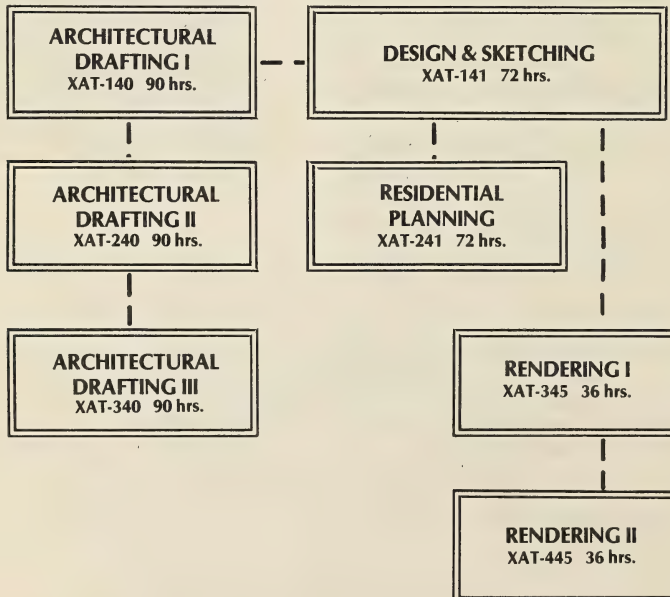
FALL - June 1, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
WINTER - November 1, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

CONTINUING EDUCATION DRAFTING DEPARTMENT

GENERAL DRAFTING SUBJECTS



ARCHITECTURAL TECHNOLOGY SUBJECTS



DRAFTING DEPARTMENT

GENERAL SUBJECTS (Self Improvement)

XDFTG-10 GENERAL DRAFTING 12 Weeks

Prerequisite: None

Monday and Wednesday,
Tuesday and Thursday,
7 - 10 p.m.

Fee: \$135.00

General drawing course covering the selection, care and use of instruments; geometric construction; lettering; the theory of orthographic and axonometric drawing; sections; auxiliary views; dimensions and notes; details and assembly drawings; reproduction of drawings by white print process.

Drafting equipment and supplies approximately \$60.00.

Commencement date - Monday, September 13
Tuesday, September 14
Monday, January 10, 1983
Tuesday, January 11, 1983

XDFTG-20 MECHANICAL DRAFTING 12 Weeks

Prerequisite: XDFTG-10

Monday and Wednesday,
7 - 10 p.m.

Fee: \$135.00

This is an applied subject in mechanical drafting. The purpose of the subject is to develop adequate manual skills in drafting as well as familiarize the student with common machine elements, and to give practice in the use of manufacturers catalogues and handbooks.

The subject will include: review of projection drawing instruction and development of surfaces; threads, fasteners and springs; drawings and the shop; limits and fits; welding drawings; bearings; gearing; mechanical drives.

Commencement dates - Monday, September 13
Monday, January 10, 1983

XDFTG-23 PIPING DRAFTING 14 Weeks

Prerequisite: XDFTG-10

or its equivalent

Monday and Wednesday,
or Tuesday and Thursday,
7 - 10 p.m.

Fee: \$156.00

An applied subject dealing only with piping drafting. Students should have either completed a basic drafting subject or are working in a drafting office. The purpose of the subject is to familiarize the student with drafting, as applied to the piping field as well as piping hardware and manufacturers catalogues.

The subject will include: piping terminology and hardware;

flow diagrams and symbols; basic instrumentation; piping drawings including piping plans, sections and piping isometrics.

Textbook cost approximately \$20.00.

Commencement date - Monday, September 13
Tuesday, September 7
Monday, January 10, 1983
Tuesday, January 11, 1983

XDFTG-24 PRESSURE VESSEL DRAFTING 12 Weeks

Prerequisite: XDFTG-10
or its equivalent

Monday and Wednesday,
7 - 10 p.m.

Fee: \$135.00

Pressure vessel drafting is intended for students working in the field or for those wishing to develop their skills in this area. Knowledge of basic drafting is essential. Design of pressure vessels will be limited to welded vessels in accordance with Section VIII of the ASME code.

The subject will include: welding processes and codes; welding symbols and their application to pressure part details; basic piping; pressure vessel details and terminology; elementary design of unfired pressure vessels from the ASME code (Section VIII); detailing of pressure vessels.

Commencement date - Monday, September 13
Monday, January 10, 1983

XDFTG-25 PROCESS PIPING DRAFTING 24 Weeks

Prerequisite: See below*

Tuesday and Thursday,
7 - 10 p.m.

Fee: \$264.00

An applied subject dealing with piping drafting in the gas and oil processing and petrochemical industries. Students should have the basic drafting skills and a knowledge of schedules, ratings and types of pipe, flanges and fittings.

The subject will include drafting instruction on flowsheets, arrangement drawings and spools. Equipment, instrumentation, specifications and codes, plant layout, piping of equipment, processing and refining, contract organization and information. Class drafting projects simulating industrial practices will be undertaken.

*The intent of this program is to provide an opportunity for drafting personnel in the piping field to update themselves from a Junior to Intermediate level through further technical education. Applicants should have a minimum of six months experience in the piping industry as well as a basic knowledge of drafting practices and be familiar with piping fittings and components.

Textbook cost approximately \$20.00.

Template cost approximately \$3.00.

Commencement date - Tuesday, September 7

REGISTRATION FOR THE ABOVE CLASSES

FALL - June 1, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
WINTER - November 1, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

**XDFTG-33 BLUEPRINT READING 7½ Weeks
AND SKETCHING**

Prerequisite: None

Tuesday and Thursday,
7 - 10 p.m.

Fee: \$86.00

Theory of projection of orthographic, isometric and oblique projections (a working rather than a theoretical understanding). Sketching materials, methods and procedures. Sketching of orthographic, isometric sketches of simple objects. Alphabet of lines. Principles of sectioning, types of sections, and their applications. Use of symbols and conventions. Basic principles of dimensioning (applied to sketching and graphical communication).

Reading of simple theoretical orthographic drawings and interpretation through the media of isometric sketches. Development of basic graphic vocabulary in architectural details through reading and sketching of typical examples of plans, elevations, sections and details.

Purpose, organization of the construction industry documents of contract, especially working drawings, specifications, general conditions. Development of basic knowledge of the persons (and organizations) involved in the execution of the work directed by these documents.

Reading and interpretation of a wide variety of sets of actual working drawings and their accompanying specifications. Emphasis to be placed upon developing skills in deriving information which is comprehensive and exacting and being able to put it into a form suitable for communication to other members of a work force.

Commencement date - Tuesday, September 7
Thursday, October 28
Tuesday, January 11, 1983
Thursday, March 3, 1983

**XDFTG-40 TOPOGRAPHICAL 15 Weeks
DRAFTING I**Prerequisite: General
DraftingWednesday,
6 - 10 p.m.

Fee: \$113.00

This course is an introduction to topographical drafting and survey drafting. The following topics will be covered and be accompanied by practical exercises: Drafting media; Mechanical lettering; Inking and taping techniques; Reproduction of drawings; Introduction to "The Systems of Subdivision of Canada Lands", with special emphasis on the Third System of Survey; Contours and contour maps; Profiles; Plotting of survey field notes; Introduction to legal survey plans.

Drafting equipment and supplies are same as used for XDFTG-10, plus an electronic calculator. Additional equipment and supplies required approximately \$85.00.

Commencement date - Wednesday, September 8
Wednesday, January 12, 1983

**XDFTG-41 TOPOGRAPHICAL 15 Weeks
DRAFTING II**Prerequisite: Topographical
Drafting ITuesday,
6 - 10 p.m.

Fee: \$113.00

This course is a continuation of Topographical Drafting I, XDFTG-40. The following topics will be covered and be accompanied by practical exercises: Review of "The Systems of Subdivision of Canada Lands", with special emphasis on the Third System of Survey; Introduction to map projections; Detailed study of Universal Transverse Mercator Projection and the UTM grid; Pipeline crossing drawings.

Drafting equipment and supplies same as XDFTG-40 plus an electronic calculator.

Commencement date - Tuesday, September 7
Tuesday, January 11, 1983

XDFTG-42 SURVEY CALCULATIONS I 12 Weeks

Prerequisite: See Below* Monday and Wednesday, 7 - 10 p.m.

Fee: \$135.00

Introduction to theory of errors. Distance measurement and field notes. Angular measurement and field notes. Associated Errors and Corrections. Traversing. Calculation of Bearings. Calculation of Latitudes and Departures. Calculation of Co-ordinates. Calculation of Areas (1) by D.M.D.'s (2) by Co-ordinates. Introduction to levelling - field notes; errors; calculations. Stadia Levelling - field notes; - calculations; - errors.

***Must have mathematical prerequisites for Survey Calculations I such as trig, algebra and geometry.**

Commencement date - Monday, September 13

XDFTG-43 SURVEY CALCULATIONS II 12 WeeksPrerequisites: Survey
Calculations ITuesday and Thursday,
7 - 10 p.m.

Fee: \$135.00

Simple Curves. Compound and Reverse Curves. Spiral Curves. Earthwork - profiles; - cross-sections; - volumes. Theory of Errors - standard deviation. Precise Angular and Distance Measurement, Errors, Corrections. Co-ordinate Systems (U.T.M. and C.U.T.M.). Sea Level, Scale Corrections. Convergence.

Commencement date - Tuesday, January 11, 1982

**XDFTG-44 MUNICIPAL DESIGN AND 12 Weeks
DRAFTING**Prerequisite: Topographical
Drafting ITuesday and Thursday,
7 - 10 p.m.

Fee: \$135.00

This course is an introduction to municipal design and drafting. Lectures will be given in a drafting laboratory where practical assignments will be carried out. These assignments will involve calculations and drafting for the design of engineering works in the following areas: subdivisions; roads and street alignments; profiles; cross-sections; mass diagrams and volumes; waste water collection; waterworks and distribution systems and traverse areas by D.M.D. method.

Commencement date - Tuesday, September 7
Tuesday, January 11, 1983

REGISTRATION FOR THE ABOVE COURSES

FALL - June 1, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.

WINTER - November 1, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

XDFTG-000 A STUDY OF THE ALBERTA 12 Weeks BUILDING CODE 1981

Prerequisite: None

Monday and Wednesday,
6:30 - 9:30 p.m.

Fee: \$167.00

The course is intended to provide the student with a working knowledge of the principles and structure of the Alberta Building Code 1981. Lectures will be given on all parts of the code with an emphasis placed on part 3. The course will also provide an overview of the Code's pertinent supplement chapters and referenced standards.

Instructors are from various segments of the building industry and are chosen on the basis of their outstanding expertise in their fields of employment such as architecture, code and bylaw enforcement, engineering, fire prevention and industry/manufacturing.

Commencement date - Monday, September 13
Monday, January 10, 1983

XDFTG-001 MODERN DRAFTING 12 Weeks PRACTICES

Prerequisite: XDFTG-40

Thursday, 6 - 10 p.m.

Fee: \$91.00

This course is an introduction to the preparation of overhead transparencies, 35mm slides, coloring of drawings, and scissors drafting. Time saving techniques including the use of tapes and dry transfer lettering are also included.

Equipment and supplies approximately \$25.00.

Commencement date - Thursday, September 16
Thursday, January 13, 1983

ARCHITECTURAL TECHNOLOGY SUBJECTS (Credit)

CREDIT SUBJECTS

Subjects following which are designated as "credit" are identical in content and carry the same subject number (with the addition of the prefix "X") as the equivalent day program subject. They may be claimed as credit in the day class program.

It should be noted that any Drafting Dept. day program subject may be offered in the evening program for credit if a sufficient number of persons are interested in having the subject presented in the evening.

XAT-140 DRAFTING 15 Weeks ARCHITECTURAL I

Credit

Prerequisite: None

Tuesday and Thursday,
7 - 10 p.m.

Fee: \$167.00

This is an elementary practical course designed to assist builders, prospective home owners, and beginning students of architecture who desire some practical knowledge of architectural drawing. Use of instruments, lettering, geometric constructions, orthographic projection, projections, materials, symbols, dimension-

ing of drawings, pictorial drawings, reading of drawings and reproduction of drawings.

This is a skill course in which there will be a brief theory lesson each evening followed by practical work consisting of freehand sketching and instrument drawing of six to eight plates, and practical drawings of a small architectural project.

Commencement date - Tuesday, September 7
Tuesday, January 11, 1983

XAT-240 DRAFTING 15 Weeks ARCHITECTURAL II

Credit

Prerequisite: XAT-140

Tuesday and Thursday,
7 - 10 p.m.

Fee: \$167.00

This course is a continuation of XAT-140.

This subject will involve the preparation of a complete set of working drawings for a light frame single dwelling C.M.H.C. residence. Site, foundation, and floor plans; elevations; building and wall sections; stair, window, and door details plus schedules; framing and electrical plans together with conventional architectural symbols, techniques and dimensioning practice shall form the necessary requirements. Perspective drawing; one point and two point perspective will also be taught in this subject.

Commencement date - Tuesday, September 7
Tuesday, January 11, 1983

XAT-340 DRAFTING 15 Weeks ARCHITECTURAL III

Credit

Prerequisite: XAT-240
or equivalent

Tuesday and Thursday,
7 - 10 p.m.

Fee: \$167.00

This course is a continuation of XAT-240. This subject will involve the preparation of a complete set of working drawings of a small commercial or apartment type building. Construction will utilize steel or wood truss-joint for floors and roof and masonry wall construction; Site, foundation, and floor plans; elevations; building and wall sections; stair, windows and door details; heating and electrical plans. Modular construction in metric; schedule and large scale details will be stressed. Theory lectures on building science pertaining to the structure will be given.

Commencement date - Tuesday, September 7
Tuesday, January 11, 1983

XAT-141 DESIGN AND SKETCHING 12 Weeks

Credit

Prerequisite: None

Monday and Wednesday,
7 - 10 p.m.

Fee: \$135.00

Freehand pencil sketching techniques, perspective plating, shades and shadow, texture representation and tone building; constructing and rendering subject in pencil.

The discovery of fundamental design elements.

Commencement date - Monday, September 13

REGISTRATION FOR THE ABOVE COURSES

FALL - June 1, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.

WINTER - November 1, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.

Check for registration location in your area.

XAT-241 ARCHITECTURAL DESIGN 12 Weeks
(RESIDENTIAL PLANNING)

Credit

Prerequisite: XAT-141 or Monday or Wednesday,
XAT-140 or equivalent 7 - 10 p.m.

Fee: \$135.00

To develop an understanding of man and his environment; a study of residential exteriors and interior spaces. Application of architectural fundamentals to residential planning. A study of landscaping fundamentals; orientation and site factors; site utilization; landscape construction and plantings; a model of the residence will be constructed time permitting.

Commencement date - Monday, September 13
Monday, January 10, 1983

XAT-345 RENDERING I 6 Weeks
(ARCHITECTURAL)

Credit

Prerequisite: XAT-141 Monday and Wednesday,
7 - 10 p.m.

Fee: \$70.00

Introduction to multi-media presentation: Felt pen, quick perspective presentations; pen and ink line rendering, colored print of pen and ink, black and white ink washer; colored ink, washer and line; felt pen colored rendering.

Commencement date - Monday, January 10, 1983

XAT-445 RENDERING II 6 Weeks
(ARCHITECTURAL)

Credit

Prerequisite: XAT-345 Monday and Wednesday,
7 - 10 p.m.

Fee: \$70.00

Multi Media architectural rendering; watercolor, tempera, colored ink, pastels. Final multi-media rendering of students choice.

Commencement date - Monday, February 21, 1983

XAT-342 THEORY OF STRUCTURES 24 Weeks
(See Note Preceding This Subject)

Students enrolled in the Architectural Technologies program and who are seeking credit in XAT-342 Theory of Structures, are required to complete PART II only of these subjects.

Students not enrolled in the Architectural Technologies program and who consequently do not have the necessary related subject knowledge generated in this program are required to take Part I and PART II in each case.

Credit

Prerequisite: None

Thursday, 6 - 9 p.m.

Fee: \$135.00 for Parts I and II

This course will cover topics useful for draftsmen and others in the construction field.

PART I

8 Weeks

Part I commences Thursday, September 2.

Fee: \$48.00

This portion of the course of eight weeks duration will cover several topics as a prerequisite for Part II. The topics will cover mechanics fundamentals, statics, mathematical solutions of equations, use of materials, drafting applications and the use of data tables and nomographs.

XAT-342A PART II 16 Weeks

Fee: \$91.00

(Part II only - Commencement date - Thursday, October 28)

Properties of structural materials, principle of mechanics; deformation, moments; beam theory; shear and bending moments; beam diagram, theory of bending and properties of sections; elementary theory of welded, bolted and rivetted joints; elementary mathematical analysis of structures, graphical solutions of trusses and frame works.

Timber construction; application of basic theory; design of timber beams; joist tables; design of joists; plank or mill floors; timber columns; design of selected projects using handbook applications.

Reference to N.B.C. will be used throughout, along with tables and data sheets. A number of exercises and problems will be included in this course.

Commencement date - Thursday, September 2

OFFICE HOURS

August 30, 1982 to March 10, 1983

Monday to Thursday - 8:00 a.m. to 8:00 p.m.

Friday - 8:00 a.m. to 4:30 p.m.

December 16, 1982 to January 3, 1983

March 14, 1983 to August 29, 1983

Monday to Friday - 8:00 a.m. to 4:30 p.m.

REGISTRATION FOR THE ABOVE COURSES

FALL - June 1, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.

WINTER - November 1, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.

Check for registration location in your area.

ELECTRICAL DEPARTMENT

NOTE: SPECIAL COURSES MAY BE OFFERED BY THE ELECTRICAL DEPARTMENT ON REQUEST, PROVIDED A MINIMUM ATTENDANCE IS INSURED.

XEET-001 INTRODUCTION TO 10 Weeks CANADIAN ELECTRICAL CODE PART I

Prerequisite: None

Tuesday, 7 - 9 p.m.

Fee: \$35.00

Study of Canadian Electrical Code with emphasis upon: General layout of book, reasons for numbering system, relationship of quarterly bulletins to C.E.C. how and when to use tables, value of the appendix. Introduction to Section 0, 2, 4, 10, 12, 30.

This course is designed to enable those persons who are lacking formal training and experience with C.E.C. to gain some knowledge of the electrical systems and associated code rules that apply to Alberta. It is also designed to prepare them for further study in Code and Applied Theory XEET-010.

Commencement date - Tuesday, September 14

XEET-010 CODE AND APPLIED 12 Weeks THEORY

Prerequisite: *See Below

Wednesday, 7 - 10 p.m.

Fee: \$59.00

Review basic principles of ac and dc circuits, electrical energy measurement and cost, single-phase and three-phase systems. Three-phase motors and controllers. Fluorescent lighting circuitry and maintenance. Heating controls. Blueprint reading and use of standard symbols.

Study of Canadian Electrical Code with emphasis on Sections 4, 6, 8, 10, 12, 14 and 28.

*1. Journeyman certification or diploma in Electrical Technology from a recognized Technical Institute or 2. XEET-001 or Equivalent of above at the discretion of the instructor.

Commencement date - Wednesday, September 15

Wednesday, January 5, 1983

XEET-011 ADVANCED CODE AND 10 Weeks APPLIED THEORY

Prerequisite: Applicants must hold a journeyman electricians certificate which is presently valid in Alberta and which has been held for a minimum of three years. In lieu of the above, the discretion of the instructor will apply

Tuesday and Thursday,
6:30 - 9:30 p.m.

Fee: \$95.00

The course is designed to assist journeyman electricians who wish to obtain "masters" certification. A good basic knowledge of the Canadian Electrical Code will be assumed. The course will include a general code coverage with special emphasis on Sections 4, 8, 14, 28 and 42 including any applicable theory.

Textbook cost approximately \$12.00.

Commencement date - Tuesday, September 14
Tuesday, January 4, 1983

XEET-012 ELECTRICAL ESTIMATING 8 Weeks

Prerequisite: Journeyman Electrician or equivalent

Monday, 6 - 9 p.m.

Fee: \$48.00

This course is intended to introduce the basic procedures involved in estimating the labor and material costs of an electrical installation.

The coverage includes: material take off; materials estimates; labor units - derivation and application; the study of blueprints and specifications; estimating procedures.

Commencement date - Monday, October 18

XEET-013 ELECTRICITY FOR THE 10 Weeks HOMEOWNER I

Prerequisite: None

Wednesday, 6:30 - 9:30 p.m.

Fee: \$95.00

This course is directed to the homeowner who wishes to further his or her knowledge with respect to construction wiring. Upon completion of the course the student will have sufficient knowledge of methods and Canadian Electrical Code rules to do simple wiring jobs around the home such as rumpus rooms, garages, etc. It will cover materials, circuitry, a study of the Code. Approximately 1/2 to 2/3 of the allotted time will be spent in the lab.

Textbook cost approximately \$14.00.

Commencement date - Wednesday, September 15
Wednesday, January 5, 1983

XEET-015 ELECTRICAL THEORY I 12 Weeks

Prerequisite: *See Below Monday and Wednesday, 6 - 9 p.m.

Fee: \$185.00

The course will include basic dc concepts, electron theory basic electrical units, Ohms Law, series, parallel and series parallel circuits, electrical power and energy, Edison three-wire circuits, voltmeter, ammeter, wattmeter connections and measurements in dc circuits, Ohms law experiments, bell circuits experiments, introduction to fundamental ac theory.

Sufficient theory will be covered in each area prior to the scheduling of applicable experiments.

*Students in this course must be sufficiently familiar with algebra and trigonometry to solve problems involving transposition of formulae and basic trigonometric functions.

Commencement date - Monday, September 13

XEET-025 ELECTRICAL THEORY II 12 Weeks

Prerequisite: XEET-015 Monday and Wednesday,
or equivalent 6 - 9 p.m.

Fee: \$185.00

AC fundamentals, transformer theory and connections, magnetic switch control circuitry, ac electrical power measurement, three-phase ac theory, brief examination of dc motors, single-phase motors and three-phase motors and controllers. Laboratory periods are scheduled when sufficient theory has been covered in each area to allow their successful completion.

Commencement date - Monday, January 10, 1983

REGISTRATION FOR THE ABOVE COURSES

FALL - June 4, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. Until courses fill.
WINTER - November 4, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

XEET-016 MATHEMATICS FOR ELECTRICAL TRADES 12 Weeks

Prerequisite: Math 10 and electrical background Monday and Wednesday, 7 - 9 p.m.

Fee: \$91.00

This course is designed for electrical tradesmen or apprentices who desire a foundation in electrical mathematics.

The course will cover both dc and ac (single phase) problems with the introduction of trigonometry and phasor analysis.

Commencement date - Monday, September 13
Monday, January 10, 1983

XEET-018 ELECTRIC MOTOR CONTROLS I 10 Weeks

Prerequisite: *See Below Thursday, 7 - 10 p.m.

Fee: \$59.00

This course is intended to give a good working knowledge of circuit diagrams, both schematic and wiring diagrams and their applications to motor controls in industry.

Typical control circuit problems (trouble shooting) and designing motor control circuits with common electrical components will be done. The course will be done on the basis of approximately 75% laboratory and 25% theory lecture.

*Students should have a good basic knowledge of electricity. First year apprenticeship or equivalent.

Commencement date - Thursday, September 16

XEET-028 ELECTRIC MOTOR CONTROLS II 10 Weeks

Prerequisite: XEET-018 or equivalent Thursday, 7 - 10 p.m.

Fee: \$59.00

This course is a continuation of Electric Motor Controls I

The student upon completion of the course will be familiar with the motors and related controllers for reduced voltage starting methods, wound rotor motors and 3-phase 2-and 4-speed motors. Approximately $\frac{1}{2}$ to $\frac{2}{3}$ of the allotted time will be spent in the laboratory.

Commencement date - Thursday, January 6, 1983

XEET-022 ELECTRONICS I 12 Weeks

Prerequisite: Understanding of Basic AC & DC electrical theory Monday, 6 - 9 p.m.

Fee: \$86.00

Oscilloscope and meter familiarization. Basic semi-conductor theory, PN junction diode characteristics, single phase and three phase rectifiers. Capacitor and choke filters, zener diode characteristics, junction transistors and basic circuits.

Approximately 50% of time will be spent in the laboratory.

Commencement date - Monday, September 13

XEET-023 ELECTRONICS II 12 Weeks

Prerequisite: Electronics I or equivalent Monday, 6 - 9 p.m.

Fee: \$86.00

Characteristics of unijunction transistor, relaxation oscillator. Silicon controlled rectifier DIACS TRIACS, d.c. motor control and static switching using SCRS and TRIACS.

Approximately 50% of the time will be spent in the laboratory.

Commencement date - Monday, January 10, 1983

XEET-035 TRANSFORMERS I 10 Weeks

Prerequisite: Good basic knowledge of electricity, 1st year Tuesday, 7 - 10 p.m.

Apprenticeship or Equivalent

Fee: \$59.00

This course is intended for electrical tradespeople or apprentices who desire an insight into the workings of transformers.

This course would also be beneficial to electrically related design people, who wish an insight into the operation and application of transformers.

Basic theory of operation of single-phase and three-phase transformers is covered. Used of instrument transformers such as current and potential types will be dealt with. Autotransformers and their uses will be lectured on, as well as demonstrated.

Approximately 30% of this course will be lecture, and 70% will be actual lab hookups to reinforce the theory.

Commencement date - Tuesday, January 11, 1983

XEET-019 BUILDING OPERATOR A (AIR CONDITIONING) 14 Weeks

Prerequisite: XPET-016 or equivalent Tuesday and Thursday, 7 - 9 pm.

Fee: \$173.00

This course is a continuation of the XPET-016 course. It is intended to give the building operator a good understanding of the operation of air conditioning and refrigeration systems, and to assist him in the preparation for the refrigeration and air conditioning part of the examination for the Building Operator A certificate under the Alberta Boilers Act.

Classroom instruction will cover: Operation, and routine maintenance of reciprocating centrifugal absorption refrigerating equipment; air conditioning principles, equipment and controls. Laboratory demonstrations pertaining to this equipment and associated controls will be included where applicable.

Commencement date - Tuesday, January 4, 1983

XEET-030 INDUSTRIAL PROGRAMMABLE CONTROLLER APPLICATIONS 10 Weeks

Prerequisite: Some knowledge in binary number systems will be an asset Monday, 7 - 10 p.m.

Fee: \$140.00

This course is designed to introduce people to the Modicon 484 Programmable Controller. This course does not require any basic computer programming knowledge. The Modicon system is designed for use by operating and maintenance personnel. During the program students will be able to design and test several sequence control systems using this programmable logic controller.

Commencement date - Monday, September 13
Monday, January 10, 1983

REGISTRATION FOR THE ABOVE COURSES

FALL - June 4, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
WINTER - November 4, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

XEET-031 LOW & HIGH VOLTAGE 3 Weeks
SPlicing & TERMINATION

Prerequisite: None

Thursday, 7 - 10 p.m.

Fee: \$28.00

This course is designed to instruct electrical tradesmen in requirements of high and low voltage terminations and splices. The students will complete projects in the lab.

Cost of materials approximately \$65.00.

Commencement date - Thursday, September 16

Thursday, January 13, 1983

XACT-100 HEATING, REFRIGERATION 14 Weeks
AND AIR CONDITIONING 16 Weeks

Prerequisite: High School Diploma
or equivalent

Wednesday,
6:30 - 9:30 p.m.

Fee: \$81.00 Fall
\$91.00 Winter

The program is a post-high school level and is offered in discrete blocks of instruction. In this manner, a student may register for all or selected parts of the program over a period of several years.

The Fall block covers the fundamentals of air conditioning system design and the Winter block covers heat load analysis.

Proposals for future blocks include air distribution, hot water heating, refrigeration, systems, controls systems and equipment selection.

Further inquiries are invited and may be directed to:

Mr. A.M. Smith
Head, Electrical Department
Telephone: 284-8626

Commencement date - Wednesday, September 8

Wednesday, January 5, 1983

OFFICE HOURS

August 30, 1982 to March 10, 1983

Monday to Thursday - 8:00 a.m. to 8:00 p.m.

Friday - 8:00 a.m. to 4:30 p.m.

December 16, 1982 to January 3, 1983

March 14, 1983 to August 29, 1983

Monday to Friday - 8:00 a.m. to 4:30 p.m.

REGISTRATION FOR THE ABOVE COURSES

FALL — June 4, 1982 - 9:00 a.m. to 4:00 p.m. — resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.

WINTER — November 4, 1982 - 9:00 a.m. to 8:00 p.m. — resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.

Check for registration location in your area.

ELECTRONICS DEPARTMENT

SPECIAL NOTE TO ELECTRONICS APPLICANTS

1. In some cases it is possible to complete one course by Christmas and register in another in January.
2. Successful completion of any prerequisite is necessary before attempting the next course except that engineers and technical employees in the Broadcasting, Electronics and Telecommunications industries wishing to take advanced subjects and who do not have the prerequisite, should request an interview by telephoning 284-8401.
3. Courses will be operated only if sufficient numbers of candidates apply.

XEN-015 APPLIED MATHEMATICS 10 Weeks **FOR ELECTRONICS**

Prerequisite: Alberta Grade X Tuesday and Thursday,
or equivalent 7 - 10 p.m.

Fee: \$113.00

This subject prepares the student for entry into Electronics programs. The emphasis is on basic mathematics principles adapted to Electronic calculator operation. Course material includes: arithmetic, measurement units and accuracy, scientific notation, operation with exponents, Metric prefixes, roots and powers, Algebra, solution of problems, Trigonometry, electronic calculator operation.

Commencement date - Tuesday, October 5
Tuesday, January 11, 1983

XEN-010 ELECTRONICS I-A 12 Weeks **(Theory)**

Prerequisite: Alberta Grade XI, Monday and Wednesday,
XEN-015 7 - 10 p.m.
or equivalent

Fee: \$135.00

This subject is offered to give students who contemplate taking Electronics II the necessary theoretical background. Subject material includes: Electric circuits; Ohm's Law 'Work and Power', Kirchhoff's Voltage law; Kirchhoff's Current law; Applications of Ohm's and Kirchhoff's laws; capacitance; inductance. Alternating current; reactance; impedance; resonance and transformers. Certain mathematical topics such as scientific notation, metric prefixes, trigonometry may have to be taught consistent with the electrical material covered.

Commencement date - Monday, September 13
Monday, January 10, 1983

XEN-010 ELECTRONICS I-B 12 Weeks **(Theory)**

Prerequisite: Alberta Grade XI, Tuesday and Thursday,
XEN-015 7 - 10 p.m.
or equivalent

Fee: \$135.00

This subject is offered to give students who contemplate taking Electronics II the necessary theoretical background. Subject mat-

erial includes: Electric circuits; Ohm's Law 'Work and Power', Kirchhoff's Voltage law; Kirchhoff's Current law; Applications of Ohm's and Kirchhoff's laws; capacitance; inductance. Alternating current; reactance; impedance; resonance and transformers. Certain mathematical topics such as scientific notation, metric prefixes, trigonometry may have to be taught consistent with the electrical material covered.

Commencement date - Tuesday, September 14
Tuesday, January 4, 1983
Tuesday, April 5, 1983

XEN-011 ELECTRONICS I-A 24 Weeks **(Theory & Lab)** **Traditional**

Prerequisite: Alberta Grade XI, Monday and Wednesday,
XEN-015 7 - 10 p.m.
or equivalent

Fee: \$264.00

This subject will deal with basic electric principles including Ohm's Law, Kirchhoff's Laws, power formulas, basic test instruments, AC circuits, effects of capacitance, inductance in electric circuits, transformers and resonance.

The laboratory portion will be run concurrently; emphasis will be on proper use of test instruments including the oscilloscope, power supplies and signal generators. Mathematical topics such as scientific notation, metric prefixes and trigonometry will be taught as it is required.

This will be the traditional lecture and laboratory, instructor directed study.

Commencement date - Monday, September 13

XEN-011 ELECTRONICS I-B 24 Weeks **(Theory & Lab)** **CML**

Prerequisite: Alberta Grade XI, Tuesday and Thursday,
XEN-015 or equivalent 7 - 10 p.m.

Fee: \$264.00

This subject will deal with basic electric principles including Ohm's Law, Kirchhoff's Laws, power formulas, basic test instruments, AC circuits, effects of capacitance, inductance in electric circuits, transformers and resonance.

The laboratory portion will be run concurrently; emphasis will be on proper use of test instruments including the oscilloscope, power supplies and signal generators. Mathematical topics such as scientific notation, metric prefixes and trigonometry will be taught as it is required.

This will be a self-paced, computer assisted learning program with instructor guidance and tutorials.

By making prior arrangements with the department, credit in this program can be applied to the equivalent day program EXT-115.

Commencement date - Tuesday, September 14

REGISTRATION FOR THE ABOVE COURSES

FALL — June 3, 1982 - 9:00 a.m. to 4:00 p.m. — resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
WINTER — November 3, 1982 - 9:00 a.m. to 8:00 p.m. — resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

XEN-020 ELECTRONICS II 12 Weeks
(Theory)

Prerequisite: XEN-010, Monday and Wednesday,
XEN-011 or equivalent 7 - 10 p.m.

Fee: \$135.00

This course in basic electronic principles prepares the student for further studies in communications electronics, industrial electronics, integrated circuits, digital logic circuits and television. Topics are: Diode and transistor principles; field effect transistor and vacuum tube principles and applications; power supplies; voltage and power amplifier; cascaded amplifiers and interstage coupling methods.

Textbook cost approximately \$30.00.

Commencement date - Monday, September 20
Monday, January 10, 1983

XEN-021 ELECTRONICS II-A 24 Weeks
(Theory & Lab)

Prerequisite: XEN-010 or Monday and Wednesday,
XEN-011 7 - 10 p.m.

Fee: \$264.00

This subject will present the principles of diodes and transistors, electronic power supplies, transistor voltage and power amplifier, oscillators and other systems that are related to radio receivers. The laboratory portion will be run concurrently and will give the student the opportunity to work with transistor checkers, curve tracers and other advanced instruments. A basic instrumentation program will be provided for those who have had no previous lab experience.

This course should prepare the student for entry into electronic communications, television, industrial electronics and other related areas.

Commencement date - Monday, September 13

XEN-021 ELECTRONICS II-B 24 Weeks
(Theory & Lab)

Prerequisite: XEN-010 or Tuesday and Thursday,
XEN-011 7 - 10 p.m.

Fee: \$264.00

This subject will present the principles of diodes and transistors, electronic power supplies, transistor voltage and power amplifier, oscillators and other systems that are related to radio receivers. The laboratory portion will be run concurrently and will give the student the opportunity to work with transistor checkers, curve tracers and other advanced instruments. A basic instrumentation program will be provided for those who have had no previous lab experience.

This course should prepare the student for entry into electronic communications, television, industrial electronics and other related areas.

Commencement date - Tuesday, September 14

XEN-031 ELECTRONICS III 12 Weeks
(Theory & Lab)

Prerequisite: XEN-021 Monday and Wednesday,
or equivalent 7 - 10 p.m.

Fee: \$135.00

This program is designed for the student with electronics experience who desires a broader experience in the industrial electronics area. Topics included are: Waveform analysis, transistor switching circuits, IC 555 Timer, operational amplifiers,

opto-electrical devices, thyristor devices, principles of modulation and demodulation.

Commencement date - Monday, September 20

XEN-032 DIGITAL LOGIC I 12 Weeks

Prerequisite: XEN-020 Monday and Wednesday,
or equivalent or Tuesday and Thursday,
7 - 10 p.m.

Fee: \$135.00

Number systems. Conversion between number systems of different radix. Arithmetic of complements. Binary codes and conversion. Boolean algebra and simplification of Boolean expressions. Mechanization of logic. Combinational logic design. Special applications including decoding and arithmetic circuits.

By the use of individual logic trainers, students will perform laboratory experiments in conjunction with classroom demonstrations and lectures.

This subject will be offered on a self-paced, computer assisted learning basis as well as the traditional, instructor directed system.

By making prior arrangements with the department, credit in this program can be applied to the equivalent day program.

Textbook cost approximately \$40.00.

Commencement date - Traditional -
Monday, September 13
Monday, January 10, 1983
Self-paced -
Tuesday, September 14
Tuesday, January 11, 1983
Tuesday, April 5, 1983

XEN-042 DIGITAL LOGIC II 12 Weeks

Prerequisite: XEN-032 Tuesday and Thursday,
or equivalent 7 - 10 p.m.

Fee: \$135.00

Sequential logic circuits. State diagrams. Asynchronous and synchronous sequential logic design. Analog to digital and digital to analog conversion. Signal multiplexing and distribution. Discussion of logic I.C.'s.

Introduction to digital computers.

Appropriate laboratory exercises with logic trainers and I.C.'s will be carried out by the student in conjunction with classroom demonstrations and lectures.

By making prior arrangements with the department, credit in this program can be applied to the equivalent day program.

Commencement date - Tuesday, September 21
Tuesday, January 11, 1983

XEN-018 INTRODUCTION TO 6 Weeks
PROGRAMMING IN BASIC

Prerequisite: None Monday and Wednesday,
7 - 9 p.m.

Fee: \$48.00

Introduction to programming in the BASIC language of time-sharing computer. Includes signing on, introduction to BASIC, computer arithmetic, input statements, output formatting, branching, looping, tabbing, argument function, subroutines.

Commencement date - Monday, January 10, 1983

REGISTRATION FOR THE ABOVE COURSES

FALL - June 3, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
WINTER - November 3, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

XEN-050 INTRODUCTION TO 12 Weeks
MINICOMPUTERS

Prerequisite: XEN-032 or Tuesday and Thursday,
working in industry 7 - 10 p.m.

Fee: \$135.00

This course is designed to introduce the student to mini-computer architecture, machine language and assembler language, programming and methods of accomplishing input/output transfer. The course will include a review of basic logic elements and their application to computers. The lecture portion will emphasize hardware considerations and will deal with central processor logic, and interface techniques.

The laboratory portion includes exercises involving machine language programming and simple interface techniques using the LSI-11/2 and PDP-11. series computers:

Textbook cost approximately \$10.00.

Commencement date - Tuesday, September 14
Tuesday, January 11, 1983

XEN-053 INTRODUCTION TO 14 Weeks
MICROPROCESSORS

Prerequisite: XEN-042 or equivalent Wednesday,
or Employee in the 7 - 10 p.m.
industry

Fee: \$81.00

This course will introduce the student to microprocessor architecture machine language programming and simple interface techniques.

A typical microprocessors development system will be used as a learning aid.

Theory sessions will cover internal register and bus structure, instruction set, external bus and control functions, addressing methods, input/output programming techniques, and typical system configuration. Lab exercises reinforcing the above topics will be performed using a lab microprocessor kit.

Commencement date - Wednesday, September 15
Wednesday, January 12, 1983

XEN-033 RADIO COMMUNICATIONS 12 Weeks

Prerequisite: XEN-021 Monday and Wednesday,
7 - 10 p.m.

Fee: \$135.00

This program is designed for the student who desires a broader knowledge of the techniques used in radio communications. Topics to be covered include: Principles of AM modulation and demodulations, circuit analysis of an AM superhetrodyne receiver, AM receiver alignment, FM principles, FM circuit analysis, FM detection, FM stereo multiplexing, FM receiver alignment, antennae, principles of multi-channel transmitters and receivers (Citizen Band receivers).

Textbook cost approximately \$30.00.

Commencement date - Monday, September 13

OFFICE HOURS

August 30, 1982 to March 10, 1983
Monday to Thursday - 8:00 a.m. to 8:00 p.m.
Friday - 8:00 a.m. to 4:30 p.m.

December 16, 1982 to January 3, 1983
March 14, 1983 to August 29, 1983
Monday to Friday - 8:00 a.m. to 4:30 p.m.

REGISTRATION FOR THE ABOVE COURSES

FALL — June 3, 1982 - 9:00 a.m. to 4:00 p.m. — resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
WINTER — November 3, 1982 - 9:00 a.m. to 8:00 p.m. — resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

MATHEMATICS AND PHYSICS DEPARTMENT

To facilitate parking on campus some subjects are offered at 6:00 p.m., some at 7:00 p.m. Excellent, inexpensive meals are available in the various SAIT cafeterias.

The Mathematics and Physics Department would be pleased to devise a program, short course, or seminar to meet the specific needs of any organization - professional, occupational, business or social.

For further information call Continuing Education, 284-8881.

COMPUTER PROGRAMMING AND DATA PROCESSING

To meet the needs of one of the fastest growing areas in the modern technical and business environment, SAIT is providing a unique evening curriculum of data processing subjects. These subjects are specially designed to train and upgrade students in many different areas of computer utilization.

The student wishing to enhance his expertise in the technical and scientific fields can take individual subjects relating to his area of interest. He may also enroll in a program to work towards a CERTIFICATE IN TECHNICAL PROGRAMMING (see below).

Students wishing to start or further their education in business data processing may take subjects in introductory data processing, programming or systems design. If so desired they can combine these subjects and work towards a CERTIFICATE IN BUSINESS PROGRAMMING (see below).

Evening credit subjects in computing may also be used to obtain credit for day programs offered by the Mathematics and Physics Department. Students wishing to gain credit for day programs should contact the Department Head of the Mathematics and Physics Department.

CERTIFICATE IN BUSINESS PROGRAMMING

THE OBJECTIVE - To teach the student theory and practice applicable to computer programming and data processing systems in a business environment.

THE PROGRAM - The program is designed to step progressively through a series of courses in programming logic, COBOL programming, and systems design in order to enhance the students' knowledge of business data processing.

To obtain a CERTIFICATE IN BUSINESS PROGRAMMING the student must complete each of the following six subjects with a standing of B or higher.

1. XCT-104 PROGRAMMING LOGIC
2. XCT-112 COBOL PROGRAMMING I
3. XCT-122 COBOL PROGRAMMING II
4. XCT-132 COBOL PROGRAMMING III
5. XCT-212 COMPUTER SYSTEMS I
6. XCT-222 COMPUTER SYSTEMS II

Upon completion of the CERTIFICATE OF BUSINESS PROGRAMMING the student will:

1. Understand the fundamentals of data processing.
2. Be able to program using COBOL.
3. Have designed a business system.

NOTE: Students wishing to take one or more subjects listed without participating in the CERTIFICATE PROGRAM may do so by simply registering in the subjects of their choice, providing they have the prerequisites.

NOTE: Students with prior experience in data processing and/or prior study in data processing may apply for credit in the subjects in which they are qualified by contacting the Continuing Education Coordinator (Computer) of the Mathematics-Physics Department at 284-8721, or leave a message at 284-8432.

CERTIFICATE IN TECHNICAL PROGRAMMING

THE OBJECTIVE - To teach the student theory and problem solutions applicable to computer programming and data processing systems in a technical environment.

THE PROGRAM - The program is designed for those students who have an interest in technical programming and in the industrial uses of the computer.

To obtain a CERTIFICATE IN TECHNICAL PROGRAMMING a student must complete the four compulsory subjects and one group of optional subjects listed below with a standing of B or higher. A detailed outline of the subjects listed below will be found in the following pages.

Compulsory subjects:

1. FORTRAN Programming I (XCT-100)
2. FORTRAN Programming II (XCT-101)
3. Assembler Programming I (XCT-203)
4. Assembler Programming II (XCT-213)

Optional subjects:

GROUP I

1. Numerical methods I (XCT-110)
2. Numerical Methods II (XCT-210)

Note that a previous course in, or knowledge of differential and integral calculus is a prerequisite for the above pair of courses.

GROUP II

1. Programming for Industrial Control I (XCT-205)
2. Programming for Industrial Control II (XCT-225)

NOTE: Programming courses, although scheduled for one night per week, have a work load such that the average person will need to come to SAIT at least one other night in the week in order to complete the assignments.

OFFICE HOURS

August 30, 1982 to March 10, 1983
Monday to Thursday - 8:00 a.m. to 8:00 p.m.
Friday - 8:00 a.m. to 4:30 p.m.

December 16, 1982 to January 3, 1983
March 14, 1983 to August 29, 1983
Monday to Friday - 8:00 a.m. to 4:30 p.m.

COMPUTER

NOTE: * These computer subjects consist of 42 hours of instruction given in 12 weeks. Therefore 2 classes will be held by class consensus on 2 extra evenings other than designated.

XCT-001 FORTRAN PROGRAMMING I 12 Weeks (DPE) (Theory Only)

No computer time at SAIT. Designed for students who have access to a Fortran Compiler. Content similar to XCT-100 with additional material being covered if time permits.

Prerequisite: Interest in the use of electronic computers and Math 30 or Coordinator approved Tuesday, 6 - 9 p.m. *See above

Fee: \$100.00

Introduction to computer systems, coding methods, input and output devices. FORTRAN: constants, variables, arithmetic statements, input and output, transfer of control, single dimension arrays. DO statements, function, Lab exercises.

Textbook cost approximately \$20.00.

Commencement date - Tuesday, September 14
Tuesday, January 11, 1983

XCT-102 INTRODUCTION TO COMPUTING 12 Weeks

Prerequisite: None

Wednesday, 6 - 8 p.m.

Fee: \$59.00

This is a survey course for persons wishing to know something about computers and data processing. The applications of computers will be discussed. The components of a computer system and their function will be explained. A high level programming language will be demonstrated and the students will be given some time on the terminals running packaged programs.

This course may not be used as a substitute for any credit course.

Textbook cost approximately \$20.00.

Commencement date - Wednesday, September 15
Wednesday, January 12, 1983

XCT-104 PROGRAMMING LOGIC 12 Weeks

Prerequisite: Math 30

or Coordinator approval

Tuesday or Thursday,

6 - 9 p.m.

*See above

Fee: \$100.00

The flow of data through the computer and the stored program concept will be explained. The student will break a problem into goals and sub-goals, design simple business data processing algorithms, flowchart them, and draw hierarchy charts. Several short COBOL programs will be run in order to introduce the language and to use the problem solving skills already learned.

Textbook cost approximately \$20.00.

Commencement date - Tuesday, September 14
Thursday, September 16
Tuesday, January 11, 1983
Thursday, January 13, 1983

XCT-100 FORTRAN PROGRAMMING I 12 Weeks (DPE)

Prerequisite: Interest in the use of electronic computers and Math 30 or Coordinator approved Tuesday or Thursday, 6 - 9 p.m. *See above

Fee: \$100.00

Introduction to computer systems, coding methods, input and output devices. FORTRAN: constants, variables, arithmetic statements, input and output, transfer of control, single dimension arrays. DO statements, function, Lab exercises.

Textbook cost approximately \$20.00.

Commencement date - Tuesday, September 14
Thursday, September 16
Tuesday, January 11, 1983
Thursday, January 13, 1983

XCT-108 INTRODUCTION TO BASIC 12 Weeks (DPE)

Prerequisite: Math 30

or Coordinator approval

Tuesday, 6 - 9 p.m.

Fee: \$86.00

Introduction to programming in the BASIC language in a time-sharing environment. Use of the terminal. Computer arithmetic. Input-Output. Decisions and branching. Looping. Functions. Applications.

Textbook cost approximately \$20.00.

Commencement date - Tuesday, September 14
Tuesday, January 11, 1983

XCT-101 FORTRAN PROGRAMMING II 12 Weeks

Prerequisite: XCT-100 or Coordinator approval Monday, 6 - 9 p.m. *See above

Fee: \$100.00

A continuation of XCT-100 with emphasis on sub-routines, disk utilization, multi-dimensional arrays and the use of the plotter.

Textbook cost approximately \$20.00.

Commencement date - Monday, September 13
Monday, January 10, 1983

REGISTRATION FOR THE ABOVE COURSES

FALL - June 4, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
WINTER - November 4, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

NOTE: * These computer subjects consist of 42 hours of instruction given in 12 weeks. Therefore 2 classes will be held by class consensus on 2 extra evenings other than designated.

XCT-110 NUMERICAL METHODS I 12 Weeks

Prerequisite: XCT-101 or Coordinator approval and Calculus

Wednesday,
6 - 9 p.m.
*See Above

Fee: \$100.00

This subject consists of a description of numerical methods and their application in the solution of typical engineering problems.

Each evening will consist of a 2 hour description, or theory presentation, of a numerical method, followed by 1 hour of lab. The lab consists of programming in Fortran the numerical method previously described. Students will be given a SAIT computer account on the VAX 11/780 (if they wish) or they may use their own or company's computer to do the lab exercises. A brief description of SAIT's system will be given.

Topics included are: roots of polynomial and transcendental equations and solution of systems of linear and nonlinear simultaneous equations.

Textbook cost approximately \$35.00.

Commencement date - Wednesday, September 15

XCT-210 NUMERICAL METHODS II 12 Weeks

Prerequisite: XCT-110

Wednesday, 6 - 9 p.m.

Fee: \$86.00

This course is a continuation of NUMERICAL METHODS I, XCT-110.

Manner of presentation; that is, 2 hours lecture and 1 hour lab, is the same as XCT-110.

Topics included are: Interpolation and extrapolation, Spline functions, Numerical Differentiation and Integration, Best fit Functions (N dimensional), Differential Equations, Optimization.

Commencement date - Wednesday, January 12, 1983

XCT-112 COBOL PROGRAMMING I 12 Weeks

Prerequisite: XCT-104 or Coordinator approval

Monday or Wednesday,
6 - 9 p.m.

*See above

Fee: \$100.00

This course is a continuation of the logic and COBOL begun in XCT-104. Problem solving logic will be extended to the level of sequential file updates. COBOL programs written will give the student an opportunity to use the elementary features of the language, and as well, to practice the problem solving skills learned in the logic portion of the course.

Textbook cost approximately \$20.00.

Commencement date - Monday, September 13
Wednesday, September 15
Monday, January 10, 1983
Wednesday, January 12, 1983

XCT-122 COBOL PROGRAMMING II 12 Weeks

Prerequisite: XCT-112

Monday, 6 - 9 p.m.

*See above

Fee: \$100.00

COBOL programming with emphasis on the manipulation of sequential files and table handling. Top down structured programming will be taught and practiced throughout this course.

Commencement date - Monday, September 13
Monday, January 10, 1983

XCT-132 COBOL PROGRAMMING III 12 Weeks

Prerequisite: XCT-122

Thursday, 6 - 9 p.m.

*See above

Fee: \$100.00

COBOL Programming involving the use of the SORT feature, table handling, indexing and the use of the SEARCH verb. The use of keyed files. String manipulation.

Commencement date - Thursday, January 13, 1983

XCT-203 ASSEMBLER PROGRAMMING I 12 Weeks

Prerequisite: XCT-100 and
XCT-101

Tuesday, 6 - 9 p.m.

Fee: \$86.00

Computer architecture. The instruction set. Assembler language programming.

Commencement date - Tuesday, September 14

XCT-213 ASSEMBLER PROGRAMMING II 12 Weeks

Prerequisite: XCT-203

Tuesday, 6 - 9 p.m.

Fee: \$86.00

A continuation of XCT-203 Assembler Programming I. Topics covered include I/O interrupt processing, push-pull stacks, re-entrant coding.

Commencement date - Tuesday, January 11, 1983

XCT-205 PROGRAMMING FOR INDUSTRIAL CONTROL I 12 Weeks

Prerequisite: XCT-213

Wednesday, 6 - 9 p.m.

Fee: \$86.00

This combined theory-laboratory course presents an introduction to computer based data acquisition and control systems. Software is developed by the participant to create a sample data acquisition system.

Commencement date - Wednesday, September 15

XCT-225 PROGRAMMING FOR INDUSTRIAL CONTROL II 12 Weeks

Prerequisite: XCT-205

Wednesday, 6 - 9 p.m.

Fee: \$86.00

A continuation of XCT-205 with emphasis on the closed loop.

Commencement date - Wednesday, January 12, 1983

REGISTRATION FOR THE ABOVE COURSES

FALL - June 4, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
WINTER - November 4, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

NOTE:* These computer subjects consist of 42 hours of instruction given in 12 weeks. Therefore 2 classes will be held by class consensus on 2 extra evenings other than designated.

XCT-212 COMPUTER SYSTEMS I 12 Weeks

Prerequisite: XCT-132 Thursday, 6 - 10 p.m.
or equivalent
programming experience or
Coordinator approval

Fee: \$113.00

Introduction to systems analysis and design with emphasis on:
analyzing existing systems; design of input and output documents;
design of file formats; documentation.

Textbook cost approximately \$16.00.

Commencement date - Thursday, September 16

XCT-222 COMPUTER SYSTEMS II 12 Weeks

Prerequisite: XCT-212 Thursday, 6 - 10 p.m.

Fee: \$113.00

Systems design with emphasis on system testing, implementa-
tion, controls, program design.

Commencement date - Thursday, January 13, 1983

OFFICE HOURS

August 30, 1982 to March 10, 1983

Monday to Thursday - 8:00 a.m. to 8:00 p.m.

Friday - 8:00 a.m. to 4:30 p.m.

December 16, 1982 to January 3, 1983

March 14, 1983 to August 29, 1983

Monday to Friday - 8:00 a.m. to 4:30 p.m.

REGISTRATION FOR THE ABOVE COURSES

FALL - June 4, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.

WINTER - November 4, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
check for registration location in your area.

MATHEMATICS

NOTE: Subjects marked * means two classes will be held by class consensus on two extra evenings other than those designated.

DPE – DAY PROGRAM EQUIVALENT

PLEASE INDICATE ON APPLICATION FORM IF TAKING SUBJECT FOR EQUIVALENT DAY CREDIT.

SMALL CLASSES CAN BE ARRANGED ON A TUTORIAL BASIS WITH FEWER HOURS OR HIGHER FEE.

XMAT-011 MATHEMATICS FOR TRADESMEN I 12 Weeks

Prerequisite: Grade VIII Monday and Thursday, 6 - 9 p.m.
Fee: \$167.00

This course provides a thorough review and the development of basic mathematical skills as required by most tradesmen.

Common and decimal fractions; percentage; perimeter, area and volume of common figures; ratio and proportion; simple equations and formulae; elementary algebra; right triangle; basic trigonometric functions; metric system.

Commencement date - Monday, September 13
Monday, January 10, 1983

XMAT-021 MATHEMATICS FOR TRADESMEN II 12 Weeks

Prerequisite: XMAT-011 or Tuesday, 6 - 9 p.m.
Math 10 or Math 13
Fee: \$86.00

The purpose of this course is to provide a brief review of arithmetic and to develop the more advanced mathematics needed by many tradesmen. The following topics are studied.

Review of arithmetic and mensuration; ratio and proportion; logarithms with basic application, basic algebra; elementary trigonometry.

Commencement date - Tuesday, January 11, 1983

XALG-001 (DPE) ALGEBRA 14 Weeks

Prerequisite: None Monday, 6 - 9 p.m.
*See Note
Fee: \$113.00

Factoring Algebraic functions. Linear equations. Quadratic equations. Systems of equations. Functions and graphs. Exponents and radicals.

Commencement date - Monday, January 10, 1983

XALG-002 ALGEBRA 16 Weeks (DPE)

Prerequisite: None Monday, 6 - 9 p.m.
*See Note

Fee: \$127.00

Similar to XALG-001, but topics are covered in greater depth. In addition complex numbers and logarithms will be studied.

Commencement date - Monday, January 10, 1983

XTRIG-001 TRIGONOMETRY 14 Weeks (DPE)

Prerequisite: Math 20 or XALG-001 Tuesday, 6 - 9 p.m.
*See Note

Fee: \$113.00

Trigonometric functions. Angles and real numbers. Right triangles. Identities. Graphs. Oblique triangles. Inverse functions. Equations. Complex numbers. Exponential, logarithmic and hyperbolic functions.

Commencement date - Tuesday, January 11, 1983

XTRIG-002 TRIGONOMETRY 16 Weeks (DPE)

Prerequisite: Math 30 or XALG-002 Tuesday, 6 - 9 p.m.
*See Note

Fee: \$127.00

Same as XTRIG-001, but in addition the following topics will be covered: Complex quantities, exponentials, logarithms, hyperbolic functions and compound identities.

Commencement date - Tuesday, January 11, 1983

XGEOM-002 ANALYTIC GEOMETRY 16 Weeks (DPE) AND INTRODUCTORY CALCULUS

Prerequisite: Math 30 Monday, 6 - 9 p.m.
*See Note

Fee: \$127.00

Designed to thoroughly acquaint the student with the subject of analytic geometry and its application and also to give the student some elementary skills in the computation of simple derivatives and integrals prior to his beginning a serious study of the calculus.

Derivatives and integrals of polynomial functions; detailed study of the conic sections; special topics.

Commencement date - Monday, January 10, 1983

XCALC-001 INTRODUCTORY CALCULUS 16 Weeks

Prerequisite: None Wednesday, 6 - 9 p.m.
*See Note

Fee: \$127.00

Limits and derivatives. Derivatives: rules and application. Differentials. Integrals and application.

Commencement date - Wednesday, January 12, 1983

REGISTRATION FOR THE ABOVE COURSES

FALL – June 4, 1982 - 9:00 a.m. to 4:00 p.m. – resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.

WINTER – November 4, 1982 - 9:00 a.m. to 8:00 p.m. – resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.

Check for registration location in your area.

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PHYSICS

NOTE: Subjects marked * consist of 42 hours of instruction given in 12 weeks; therefore two classes will be held by class consensus on two extra evenings other than those designated.

XMECH-003 DYNAMICS I 12 Weeks (DPE)

Prerequisite: Math 30 or equivalent Monday, 6 - 9 p.m.

Fee: \$100.00

The subject matter includes vectors, displacement, velocity, acceleration, Newtonian mechanics, friction, work, energy, power, torque and rotary motion.

Textbook cost approximately \$13.00.

Commencement date - Monday, January 10, 1983

force systems. Loading problems on arches and cables. Centroids. Moments of inertia. Shear, moment, stress in beams.

Textbook: same as XMECH-005.

Commencement date - Tuesday, January 11, 1983

XMECH-004 DYNAMICS II 12 Weeks (DPE)

Prerequisite: XMECH-003 or equivalent Wednesday, 6 - 9 p.m.
*See Note

Fee: \$100.00

Momentum, Circular Motion. Elasticity. Vibratory Motion. Liquids at rest and in motion.

Textbook: same as XMECH-003.

Commencement date - Wednesday, January 12, 1983

XMECH-007 MECHANICS OF FLUIDS 12 Weeks (DPE)

Prerequisite: Math 30 or equivalent Monday, 6 - 9 p.m.
Physics 30 or equivalent *See Note

Fee: \$100.00

This course will enable the student to work simple fluid mechanics problems. He will be able to determine pressures and heads under static and dynamic condition and be able to calculate pressure drops in pipes and bends.

Introduction. Pressure, head, force. Buoyancy, flow rate. Bernoulli's Equation. Flow in Pipes.

Textbook cost approximately \$11.00.

Commencement date - Monday, January 10, 1983

XMECH-005 STATICS 12 Weeks (DPE)

Prerequisite: XTRIG-001 or equivalent Monday, 6 - 9 p.m.
*See Note

Fee: \$100.00

This course will enable the student to work basic problems in statics. The student will be able to draw free body diagrams and solve truss problems using the Methods of Joints.

Basic principles of statics. Coplanar, parallel force systems. Coplanar, concurrent force systems. Non-concurrent force systems. Typical structural problems.

Textbook cost approximately \$11.00.

Commencement date - Monday, January 10, 1983

GEOPHYSICAL CERTIFICATE PROGRAM

In response to the demand of the oil industry in Calgary for trained geophysical assistants, SAIT had designed a Geophysical Certificate Program consisting of six courses. This program is intended to train people with no previous knowledge of Geophysics and to upgrade those people who are already working in Geophysics.

The program consists of four required courses and two optional related courses. A standing of B (70%) or higher must be achieved in all six courses.

The four required courses are:

1. XEST-110 Geophysics IA Introduction of Reflection Seismic
2. XEST-109 Geophysics IB Further Reflection Seismic
3. XEST-111 Geophysics II Gravity and Magnetism
4. XBWL-001 Geophysics III Basic Well Logging Level A

Geophysics IA and IB are not prerequisites for Geophysics II. Geophysics II may be taken at anytime in the sequence.

A student may submit courses that he/she wishes to use as options. Any course less than 36 hours will not be accepted as an option, but suitable combinations of courses of at least equal to 36 hours will be accepted. FORTRAN PROGRAMMING I and GEOPHYSICS IV are recommended options.

Detailed descriptions of these courses are given elsewhere in this calendar.

Further information may be obtained by contacting either the Department Head of the Mathematics and Physics Department at 284-8432, or Continuing Education at 284-8881.

XMECH-006 STATICS AND STRESSES 12 Weeks (DPE)

Prerequisite: XMECH-005 Tuesday, 6 - 9 p.m.
*See Note

Fee: \$100.00

To thoroughly acquaint the students with some of the industrial methods of solving structural problems.

Three dimensional force systems. Non-concurrent, non-coplanar

REGISTRATION FOR THE ABOVE COURSES

FALL - June 4, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.

WINTER - November 4, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.

Check for registration location in your area.

XEST-110 GEOPHYSICS IA 12 Weeks

Prerequisite: Math 30 Sept. — Mondays or Wednesdays
or equivalent Jan. — Tuesdays or Thursdays,
6 - 9 p.m.

Fee: \$86.00

NOTE: Credit towards the Geophysical Certificate Program will be allowed to those who complete Geophysics IA with an A or B standing.

Designed for people with little or no geophysical experience.

Introductory topics include: field acquisition techniques; theory of seismic wave propagation; subsurface diagrams that multifold coverage.

First breaks are plotted. Elevation and normal move out corrections are discussed.

Topics from digital processing are given a general non-mathematical treatment.

An interpretation and mapping exercises of final processed sections complete the course.

Commencement date - Monday, September 13
Wednesday, September 15
Tuesday, January 11, 1983
Thursday, January 13, 1983

XEST-109 GEOPHYSICS IB 12 Weeks

Prerequisite: Geophysics IA Monday, 6 - 9 p.m.
or permission of instructor

Fee: \$86.00

NOTE: Credit toward the Geophysical Certificate Program will be allowed to those who complete Geophysics IB with an A or B standing.

This course goes beyond Geophysics IA covering acquisition, processing and interpretation of reflection seismic data with added emphasis on data processing.

Topics include: simple descriptions of recording systems. True amplitude recovery. Draft corrections. Velocity from CDP analysis. Discussion of digital filtering and deconvolution. Synthetic seismograms. Seismic sections are shown to display "pitfalls" in interpretation.

Commencement date - Monday, September 13
Monday, January 10, 1983

XEST-111 GEOPHYSICS II 12 Weeks

Prerequisite: *See below Wednesday, 6 - 9 p.m.

Fee: \$86.00

NOTE: Credit towards the Geophysical Certificate Program will be allowed to those who complete Geophysics II with an A or B standing.

*The course like XEST-110 will be aimed at students having no background in the industry but who would like to assist particularly in the areas of gravity and/or magnetic geophysics. It is designed to follow XEST-110 but that is not a prerequisite. Again, introductory courses in physics and physical geology would be helpful. A geologic background is necessary in gravity interpretation. Geology and Physics are available through the Department of Continuing Education at SAIT. Persons working in gravity or magnetics will find the material repetitive.

Introduction to the theory of gravity and magnetic methods, with emphasis on, description of field technique and instruments, relation of field observation error to error in final result, practical experience in computing corrections and processing data, isolation of anomalies, evaluation of depth and size of anomalies, if possible conducting a sample survey.

Commencement date - Wednesday, September 15
Wednesday, January 12, 1983

**XBWL-001 GEOPHYSICS III 12 Weeks
(Basic Well Logging, Level A)**

Prerequisite: None required, Tuesday, 6 - 9 p.m.
but High School
Math would be
helpful

Fee: \$86.00

NOTE: Credit towards the Geophysical Certificate Program will be allowed to those who complete Geophysics III with an A or B standing.

Log responses for Induction, Laterolog, Micro devices, Sonic, Density and Neutron surveys are explained, with respect to the location of hydrocarbon bearing zones. A systematic method of interpretation in shaly sands for gas identification and production estimation is presented.

Commencement date - Tuesday, September 14
Tuesday, January 11, 1983

**XBWL-002 GEOPHYSICS IV 12 Weeks
(Intermediate Well Logging)
(Level B)**

Prerequisite: Geophysics III Wednesday, 6 - 9 p.m.

Fee: \$86.00

NOTE: Credit towards the Geophysical Certificate will be allowed to those who complete Geophysics IV with an A or B standing.

For those who are familiar with log responses via Level A or log interpretation experience, this second level course is designed as an introduction to resistivity overlay methods, as well as the Rwa and RXO/t techniques. Carbonate porosity evaluation is presented as well as Wellsite, Cyberlook, and Dipmeter. Persons completing both Level A and Level B, should feel comfortable performing wellsite log evaluation.

Commencement date - Wednesday, September 15
Wednesday, January 12, 1983

**XEST-112 GEOPHYSICS V 13 Weeks
(Geology For Geophysicists)**

Prerequisite: Geophysics IV Wednesday, 6 - 9 p.m.
Fee: \$93.00

NOTE: Credit towards the Geophysical Certificate will be allowed to those who complete Geophysics V with an A or B standing.

Time scale; major rock types; stratigraphy; petroleum structures; porosity, permeability, reservoir fluids; major types of geophysical logs; mapping techniques; Canada land forms; origin and migration of petroleum; model of Western Canada Basin.

Commencement date - Wednesday, September 15
Wednesday, January 12, 1983

REGISTRATION FOR THE ABOVE COURSES

FALL — June 4, 1982 - 9:00 a.m. to 4:00 p.m. — resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
WINTER — November 4, 1982 - 9:00 a.m. to 8:00 p.m. — resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

MEDICAL SCIENCE DEPARTMENT

XMT-001 MEDICAL TERMINOLOGY I 12 Weeks

Prerequisite: None

Thursday, 6 - 8 p.m.

Fee: \$70.00

This course is designed to familiarize the student with the basic concepts of medical terminology by studying prefixes, roots and suffixes, and relating these to their proper usage.

Handout material on laboratory tests and pharmacology.

Textbook cost approximately \$12.00.

Commencement date - Thursday, September 9

Thursday, January 13, 1983

This program to be taken by electronic media.

A comprehensive course designed specifically for those individuals working, or anticipating working, in the Occupational Health and Safety Industry. This 18 hour course includes instruction in the theory and operation of modern day spirometers, but the emphasis is "hands-on" laboratory testing.

Certification is given by S.A.I.T. to standards recognized by Alberta Workers' Health, Safety and Compensation. Interested applicants should contact the Continuing Education Department.

Commencement date - Friday, October 15

Friday, February 25, 1983

Friday, May 13, 1983

XMT-002 MEDICAL TERMINOLOGY II 6 Weeks

Prerequisite: Medical

Terminology I or some formal training in medical terminology

Monday, 5:30 - 8:30 p.m.

Fee: \$32.00

This course is a continuation of Medical Terminology I with an introduction to laboratory tests, x-ray procedures and basic pharmacology. In addition, further anatomy and physiology will be covered with emphasis on the reproductive and digestive systems.

Textbook - same as for XMT-001.

Commencement date - Monday, April 11, 1983

XCR-002 CARDIOPULMONARY RESUSCITATION 3½ Weeks

Prerequisite: None

Tuesday and Thursday,
7 - 10 p.m.

Fee: \$48.00

A comprehensive intensive course in resuscitation of adults, children, and infants. This course is specifically designed for those who wish to attain real competency and skill in this life-saving procedure. Heavy emphasis is placed on practical "hands-on" training. Special attention is given to children and a special section devoted to S.I.D.S. (Sudden Infant Death Syndrome) for young mothers.

REMEMBER - Heart Attack is no respecter of age. BE READY, BE TRAINED.

Commencement date - Tuesday, October 5

Tuesday, February 15, 1983

Tuesday, April 19, 1983

XSTI-001 SPIROMETRIC TESTING FOR INDUSTRY 1 Week

Prerequisite: None

Friday, 7 - 10 p.m.

Saturday, 9 - 5 p.m.

Sunday, 9 - 4 p.m.

Fee: \$160.00

DENTAL ASSISTING

XDA-900 REVIEW AND UPDATE OF PREVENTIVE DENTISTRY CONCEPTS AND TOTAL PATIENT CARE 4 Weeks

Prerequisite: None

Wednesday, 7 - 10 p.m.

Fee: \$27.00

Subject area will include: The structure and function of dental plaque and its relationship as an etiological factor in dental caries and destructive periodontal disease; Topical fluoride therapy and alternative fluoride and preventive programs; Oral Hygiene Techniques and Home Care; Specific medical/dental considerations prior to performing expanded duty intra-oral procedures.

Commencement date - Wednesday, February 2, 1983

XDA-995 TAKING OF IMPRESSIONS FOR STUDY CASTS 3 Weeks

Prerequisite: All students must be currently Certified and Registered with the Alberta Dental Assistants Association. Proof of certification must be shown on application. This is an Intra Oral course and upon completion, graduates must register with the Alberta Dental Assistants Association before taking impressions for study casts at their place of employment.

Tuesday,
5:30 - 8:30 p.m.

Fee: \$57.00

A course to teach the student to take accurate impressions for study casts with maximum patient comfort.

All students must supply approximately three patients.

NOTE: This class will be limited to 10 students. Full dress uniform is required for all classes.

Commencement date - Tuesday, January 11, 1983

REGISTRATION FOR THE ABOVE COURSES

FALL - June 4, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.

WINTER - November 4, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.

Check for registration location in your area.

XDA-996 APPLICATION AND REMOVAL 5 Weeks OF RUBBER DAM

Prerequisite: All students must be currently Certified and Registered with the Alberta Dental Assistants Association. Proof of certification must be shown upon application. This is an Intra Oral Course, and upon completion graduates must register with the Alberta Dental Assistants Association before applying and removing rubber dams at their place of employment.

Tuesday,
5:30 - 8:30 p.m.

Fee: \$100.00

A course to teach students to place and remove a rubber dam which adequately isolates the appropriate teeth with minimum trauma to teeth and periodontium and maximum patient safety and comfort.

All students must supply approximately four patients.

NOTE: The class will be limited to 10 students. Full dress uniform is required for all classes.

Commencement date - Tuesday, February 1, 1983

XDA-997 DENTAL RADIOGRAPHY 12 Weeks

Prerequisite: All students must be currently Certified and Registered Dental Assistants with the Alberta Dental Assistants Association. Proof of certification must be shown upon application. This is an Intra Oral Course, and upon completion, graduates must register with the Alberta Dental Assistants Association before exposing dental radiographs at their place of employment.

Wednesday,
5:30 - 8:30 p.m.

Fee: \$194.00

Students will be supplied with a study manual upon registration. A pre-test on the material in the manual will be given on the second class. All applicants must successfully complete the pretest to continue in the course.

All students must supply six patients requiring full mouth radiographic surveys.

Students must also supply their own dental film and a RINN XCP Instrument kit.

NOTE: This class will be limited to 8 students. Full dress uniform is required for laboratory classes.

Commencement date - Wednesday, September 15

OFFICE HOURS

August 30, 1982 to March 10, 1983

Monday to Thursday - 8:00 a.m. to 8:00 p.m.

Friday - 8:00 a.m. to 4:30 p.m.

December 16, 1982 to January 3, 1983

March 14, 1983 to August 29, 1983

Monday to Friday - 8:00 a.m. to 4:30 p.m.

REGISTRATION FOR THE ABOVE COURSES

FALL - June 4, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.

WINTER - November 4, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.

Check for registration location in your area.

METALS DEPARTMENT

The Metals Department is prepared to meet with companies or organizations, to design Continuing Education programs, to meet the special needs of industry on or off campus.

If you wish to discuss your special needs please phone 284-8558.

XM100-208 METROLOGY 12 Weeks (DPE)

Prerequisite: A good working knowledge of both written and spoken English Tuesday, 7 - 10 p.m.

Fee: \$113.00

This course will be advantageous to persons interested in industrial quality control, mechanical engineers, mechanical designers, industrial engineers.

The following areas will be covered in this course. Basic principles of dimensional control; how read; zero and calibrate micrometers and vernier calipers; types and applications of fixed gauges in industry; types and uses of dial indicators; methods of inspecting screw thread; applications on an optical comparator; how different surface finishes are produced and methods to inspect them; applications of a toolmaker's microscope; how to use a circular division tester; how to set up and use an auto-callimator; how to measure parts using light waves; applications of an electronic height gauge; application and accuracy of air gauging; applications of laser beams; a discussion of the working principles of interchangeability, also the working principles of metrication.

Lectures will be followed by a demonstration and as much student participation as time will allow.

Commencement date - Tuesday, September 7
Tuesday, January 11, 1983

XM101 MACHINE SHOP I 12 Weeks

Prerequisite: None Thursday, 7 - 10 p.m.

Fee: \$113.00

Basic hand skills as marking out; hack-sawing; filing, drilling; tapping; reaming; counterboring; countersinking; and drill grinding. Precision measurement (micrometers).

This course will be accepted for credit towards Machine Shop A.S.P. I if the student has taken the full course and failed it.

Commencement date - Thursday, September 9
Thursday, January 13, 1983

XM101 MACHINE SHOP II 12 Weeks

Prerequisite: Machine Shop I or equivalent Tuesday, 7 - 10 p.m.

Fee: \$113.00

Introduction to lathe work; parts and controls; speed and feed calculations; setting up four jaw chuck, three jaw chuck, drive plate, speeds and feeds; tool bit grinding; facing; centre drilling; turning; knurling; and taper turning.

This course will be accepted for credit towards A.S.T. I, A.M.T. I and P.E.T. I Machine Shop.

Commencement date - Tuesday, September 7
Tuesday, January 11, 1983

XM102 MACHINE SHOP III 12 Weeks

Prerequisite: XM101 or discretion of Instructor Wednesday, 7 - 10 p.m.

Fee: \$113.00

This course is designed to follow on from Machine Shop II. The student will start with cutting of threads on the lathe, including all necessary formula calculations, and then proceed to the turning of tapers and the calculations involved. Finally the boring of bearings and housings will be covered, on the lathe.

Commencement date - Wednesday, September 8
Wednesday, January 12, 1983

XM103 MACHINE SHOP IV 12 Weeks

Prerequisite: XM102 or discretion of Instructor Thursday, 7 - 10 p.m.

Fee: \$113.00

Advanced thread cutting on the lathe of Acme and Square forms including calculations involved. Multi start threads will be covered with the cutting of National thread forms. This course will appeal to those persons who feel they need updating and practice in these areas.

Commencement date - Thursday, September 9
Thursday, January 13, 1983

XM104 BRASS CANNON 8 Weeks INSTRUCTIONAL MACHINE SHOP

Prerequisite: None Monday and Wednesday, 7 - 10 p.m.

Fee: \$149.00

During this course, a model brass cannon approximately 10" long will be made.

Instruction will be given in such basic hand skills as laying out, filing, hack-sawing, drilling, tapping, counter sinking, and fitting. Lathework instruction will include parts and controls, speed and feed calculations, use of three and four jaw chucks, grinding of toolbits and drills, straight and taper turning, boring drilling, reaming and form turning.

The fee includes the cost of the materials for the cannon.

Commencement date - Monday, September 13
Monday, January 10, 1983

This course will be accepted for credit in W.E.T. and E.G.T. I Technology Programmes.

XM105 BASIC MILLING & LATHE WORK 6 Weeks

Prerequisite: Machine Shop III Tuesday and Thursday, 7 - 10 p.m.

Fee: \$199.00

Suitable projects will be offered to teach the student basic operations of a milling machine. The lathe work will supplement the manufacturing of the milling projects.

Commencement date - Tuesday, September 14
Tuesday, January 11, 1983

REGISTRATION FOR THE ABOVE COURSES

FALL - June 2, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
WINTER - November 2, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

Prerequisite: Machine Shop I & II
or equivalent

Wednesday,
7 - 10 p.m.

Fee: \$89.00

The general procedure required to make a successful casting.

The techniques required to make a pattern of wood, wax or styro-foam.

The metal preparation techniques required for casting. The correct pouring methods for sound casting.

Each class member to make patterns for a simple casting of their own design.

Each class member to cast at least one small item of his own choice in Aluminum.

Commencement date - Wednesday, September 8

OFFICE HOURS

August 30, 1982 to March 10, 1983

Monday to Thursday - 8:00 a.m. to 8:00 p.m.

Friday - 8:00 a.m. to 4:30 p.m.

December 16, 1982 to January 3, 1983

March 14, 1983 to August 29, 1983

Monday to Friday - 8:00 a.m. to 4:30 p.m.

REGISTRATION FOR THE ABOVE COURSES

FALL — June 2, 1982 - 9:00 a.m. to 4:00 p.m. — resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.

WINTER — November 2, 1982 - 9:00 a.m. to 8:00 p.m. — resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.

Check for registration location in your area.

SHEET METAL

XSM-008 JOURNEYMAN SHEET METAL 12 Weeks SHOPWORK UPGRADING

Prerequisite: Journeyman Sheet Metal Certificate Tuesday and Thursday, 7 - 10 p.m.

Fee: \$221.00

This program is being provided for those journeymen who wish to improve their hand skills. This program will use strictly a hands on approach, fabricating a variety of useful projects.

Emphasis will be placed on developing sound basic techniques and time permitting some of the more complex procedures.

Full use of equipment will be made.

1. Project design at the instructor's discretion.
2. Shop procedure to be discussed at time of registration.

Commencement date - Tuesday, September 14
Tuesday, January 11, 1983

The following two Home Owners Maintenance Programs are to familiarize the Home Owner on the operation, maintenance and minor repairs to the plumbing and heating systems.

XPB-001 HOME OWNERS 3 Weeks PLUMBING COURSE

Prerequisite: None Monday and Wednesday, 7 - 10 p.m.

Fee: \$59.00

Introduction to plumbing systems, basic tap maintenance, methods of clearing or recovering lost items in drainage systems.

Emergency methods of shut down or maintenance for water heaters or closet tanks.

Steps to take when leaving home vacant for vacation or closing a holiday cabin. Discussion on pitfalls of renovations of bathroom, kitchen, etc.

Commencement date - Monday, October 18
Monday, January 17, 1983

XSM-009 HOME OWNERS 3 Weeks HEATING COURSE

Prerequisite: None Monday and Wednesday, 7 - 10 p.m.

Fee: \$59.00

Introduction to types and designs of furnaces, fuels, controls, fans, vent pipes, down drafts and humidifiers.

The maintenance and emergency shut down of the system will be discussed and demonstrated.

The safe operation and steps required when vacating the home or cabin for a period of time will be discussed.

Any questions of concern will be answered and advice as to safe methods or steps to have problems corrected.

Commencement date - Monday, November 8
Monday, February 7, 1983

XSM-010 SERVICE AND MAINTENANCE 6 Weeks OF FORCED HEATING, AIR CONDITION AND VENTILATION EQUIPMENT

Prerequisite: Journeyman Sheet Metal Certificate Monday and Wednesday, 7 - 10 p.m.

Fee: \$113.00

This course introduces the fundamentals of advanced controls and their principles.

Course Content:

1. Burners: Natural gas, L.P.G., oil, coal, wood.
2. Controls: All controls pertaining to the above will be covered.
3. New Equipment:
 - Wood burning furnaces
 - Combo-fired furnaces
 - Stokers
 - Solar Htg. (Pros and Cons)
 - Heat pumps (Pros and Cons)
4. Energy Conservation Equipment
 - a) Econ-o-vents
 - b) Heat exchangers
 - c) Economizers
 - d) Night-setbacks
 - e) Heat reclaimers
 - f) Electronic ignition
 - g) Thermistors
 - h) Attic powered ventilation versus A/C
 - i) Water cooled residential and Commercial cooling
 - j) Automatic, year round, make up air for residential and small commercial heating
 - k) Booster fans for heating
 - l) Humidifiers (New and Old) (Pros and Cons)
 - m) Electronic air cleaning

Textbook required: Comfort Heating, Bill C. Langley (Second Edition).

Commencement date - Monday, September 13

OFFICE HOURS

August 30, 1982 to March 10, 1983
Monday to Thursday - 8:00 a.m. to 8:00 p.m.
Friday - 8:00 a.m. to 4:30 p.m.

December 16, 1982 to January 3, 1983
March 14, 1983 to August 29, 1983
Monday to Friday - 8:00 a.m. to 4:30 p.m.

REGISTRATION FOR THE ABOVE COURSES

FALL - June 2, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
WINTER - November 2, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

INDUSTRIAL ENGINEERING SUBJECTS

The industrial engineering technology section, through the Metals Department provides Continuing Education services for the pursuance of an Industrial Engineering Certificate.

CERTIFICATE AND DIPLOMA PROGRAMS

Including courses offered on a credit basis towards certificate or towards the day diploma program. See day calendar for details of requirements.

CERTIFICATE PROGRAM

Under the jurisdiction of Continuing Education, the Metals Department of S.A.I.T. offers a Certificate Program in Industrial Engineering. The certificate is issued upon successful completion of required program in either Continuing Education or day courses.

The Continuing Education Certificate Program is not equivalent to the two-year day program which leads to a diploma in Industrial Engineering Technology. However most courses in the Program are equivalent to similar subjects or are half course subjects in the day program. Credits for courses completed in Continuing Education may subsequently be transferred to apply as credit marks in a Diploma Program.

ADMISSION

The program required that students possess either a high school diploma or have a suitable background of experience, as approved by the Metals Department.

Upon registration, intent to pursue a certificate or diploma must be declared.

FEE

The fee structure for a Certificate Program shall be on a course by course basis.

Credit may be granted for courses studied in other educational institutions up to a maximum of 40% of the program hours.

Students wishing to obtain credit towards the Certificate Program for courses taken previously at S.A.I.T. (whether offered under other titles or course numbers) should also address their enquiries for credit marks to the Continuing Education Office. No fee is chargeable for these exemptions.

CERTIFICATE REQUIREMENTS

Successful completion with a C standing in each subject studied. Students are graded using the same assessment standards as are applied to full time day students.

PREREQUISITES

Courses in lieu of stated prerequisites from other institutions may be approved by the instructional department only. Students must apply in writing 15 days prior to commencement of course. Address inquiries to the Continuing Education Coordinator, Metals Department.

CHOICE OF OPTIONS

Along with the core subjects the option I choice of subjects is designed to equip the practitioner with the necessary tools to design, measure and install incentive schemes.

OVERALL OBJECTIVE

To train to a technician level a person who can

- function as an assistant to an industrial engineer or
- apply the skills in his/her organization while working with a minimum of supervision or
- carry out time study and methods improvement projects.

A.S.E.T. ACCREDITATION

The Alberta Society of Engineering Technologists are reviewing this certificate with a view of certifying, successful candidates as certified Engineering Technicians.

SUBJECT NUMBER	INDUSTRIAL ENGINEERING TECHNOLOGY CERTIFICATE SUBJECT REQUIREMENTS	CORE SUBJECTS	OPTION 1	OPTION 2
XDFTG-10	General Drafting	•		
XIET-116	Engineering Materials I	•		
XIET-106	Numerical Control	•		
XENGL-122	Report Writing	•		
XALG-001	Algebra	•		
XCT-108	BASIC Computing Language	•		
XIET-403	Engineering Economics I	•		
XACC-101	Financial Accounting I	•		
XORB-201	Organization Behaviour*	*		
XIET-514	Management Information Systems			•
XIET-537	Production Management	•		
XIET-202	Methods Engineering/plant layout	•		
XIET-302	Work Measurement	•		
XIET-402	Advanced Work Measurement			•
XIET-502	Methods Time Measurement		•	
XIET-311	Ergonomics			•
XIET-608	Work Systems Design	•		
XIET-408	Incentive Systems		•	
XSTAT-001	Statistics	•		

*Supervision I and II as offered by Business Administration may be substituted for Organizational Behaviour.

XMECH-111**ENGINEERING
MATERIALS I****16 Weeks**

Prerequisite: None

Wednesday, 7 - 10 p.m.

Fee: \$91.00

Structure of the atom: Stress and strain - Poisson's Ratio; Young's modulus; the tension test; mechanisms of deformation - slip and twinning; thermal expansion and conductivity; viscosity, brittle fracture; fatigue, creep; hardness, machine ability and formability; electrical and magnetic properties. Production of pig iron, steel and cast iron; equilibrium diagrams, effect of carbon and alloying elements on the micro-structure and mechanical properties of steel. Property and use of plastics and other nonmetals.

Commencement date - Wednesday, September 15

XIET-106 NUMERICAL CONTROL 12 Weeks

Prerequisite: None

Monday, 7 - 10 p.m.

Fee: \$70.00

Introduction, advantages, disadvantages, planning and process flow, economic comparisons of conventional versus N.C. manufacturing introduction to N.C. part programming.

Commencement date - Monday, September 13

XIET-311 ERGONOMICS 12 Weeks

Prerequisite: XIET-202

Tuesday, 7 - 10 p.m.

Fee: \$70.00

A multidisciplinary subject dealing with the interactions between man and his total working environment including such elements as: atmosphere, heat, light, sound, tools and equipment of the workplace.

Commencement date - Tuesday, February 15, 1983

**XIET-202 METHODS ENGINEERING/
PLANT LAYOUT 20 Weeks**

Prerequisite: XALG-001 or XALG-002

Tuesday, 7 - 10 p.m.

Fee: \$113.00

Methods, time study, and wage payment today; development of motion and time study; the operation and flow process charts; operation analysis; man and machine relationships; presentation and installation of a proposed method.

Site evaluation and selection. Site development determining internal space requirements and locations. Improving existing facility layouts. Selection of materials handling equipment. Evaluation and planning of warehousing and distribution systems.

Commencement date - Tuesday, September 7

**XIET-302 WORK MEASUREMENT 15 Weeks
(Including Basic Time Study)**

Prerequisite: XIET-202

Thursday, 7 - 10 p.m.

Fee: \$86.00

Job analysis and evaluation, time study requirements, equipment, elements of a time study, performance rating.

Commencement date - Thursday, February 17, 1983

XIET-402**ADVANCED WORK
MEASUREMENT****15 Weeks**

Prerequisite: XIET-302

Tuesday,
7 - 10 p.m.

Fee: \$86.00

Allowances, standard time, standard data. Formula construction, work sampling studies, group timing techniques, indirect work standards, introduction to micromotion study.

Commencement date - Tuesday, September 14

**XIET-514 MANAGEMENT 15 Weeks
INFORMATION SYSTEMS**

Prerequisite: None

Wednesday, 7 - 10 p.m.

Fee: \$86.00

Introduction to information systems in organizations. The definition and characteristics of successful systems will be discussed. The environment, target, design (including both human and computerized functions), and implementation will be studied.

Commencement date - Wednesday, January 12, 1983

XIET-408 INCENTIVE SYSTEMS 12 Weeks

Prerequisite: XIET-302, XIET-202

Thursday,
7 - 10 p.m.

Fee: \$70.00

Introduction to financial and non-financial incentive schemes. Designing and installing of Payment By Results (PBR) schemes. Form design for incentives. Drafting master agreements. Negotiating payment levels.

Commencement date - Thursday, September 16

**XIET-608 WORK SYSTEMS DESIGN 12 Weeks
(DPE)**Prerequisite: XIET-202, XENGL-122,
XIET-403, XORB-201

Monday, 7 - 10 p.m.

Fee: \$70.00

A practical course on work systems design, using group planning and problem-solving techniques, applying the "Ideals Concept". Each student will be involved with study of the design strategy, then, through its application in class projects, develop the design strategy for individual leadership experience, creative innovative solutions to practical problems, and successful decisions in a reasonable time.

Concepts will be reinforced by each participant applying them to a practical project of his/her choice.

Commencement date - Monday, September 13

**XIET-403 ENGINEERING ECONOMICS I 12 Weeks
(DPE)**

Prerequisite: None

Tuesday, 7 - 10 p.m.

Fee: \$70.00

The basic purpose is to give the student an introduction to economic decision-making. Selection of the BEST alternative according to economic criteria. Definitions; the interest formulae and their application; equivalence; analysis of investment alternative by the annual cost, present value, and rate of return methods.

Commencement date - Tuesday, September 14

REGISTRATION FOR THE ABOVE COURSES

FALL - June 2, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.

WINTER - November 2, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.

Check for registration location in your area.

XIET-537 PRODUCTION MANAGEMENT 15 Weeks (DPE)

Prerequisite: XORB-201 and XALG-001 or XALG-002

Monday, 7 - 10 p.m.

Fee: \$86.00

The purpose of the course is an overview of the total production management function. Fundamental concepts of production management, product improvement. Production planning and control. Quality control, methods improvement. Process selection and choice of technology.

Commencement date - Monday, January 10, 1983

XSOS-112**PRINCIPLES OF SUPERVISION I****10 Weeks**

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XSOS-212**PRINCIPLES OF SUPERVISION II****10 Weeks**

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XIET-502**MTM-I****15 Weeks**

Prerequisite: None

Tuesday and Thursday,
7 - 10 p.m.

Fee: \$167.00

Introduction to Methods, Time Measurement. Fundamental motions; Reach, Move, Turn, Grasp. Body, leg and foot motions. Eye travel and focus. Positions, and supplementary position; Disengage and Release. Simultaneous and Combined motions. Application of MTM-I. Students will qualify for MTM Association exams for accreditation as an MTM practitioner (Blue Card Level).

Commencement date - Tuesday, January 11, 1983

ADDITIONAL INDUSTRIAL ENGINEERING SUBJECTS

NOTE: COURSES XIET-403, XIET-503, ARE DESIGNED TO BE OF MAXIMUM BENEFIT TO ENGINEERS, TECHNOLOGISTS, AND OTHERS CONCERNED WITH PROJECT ANALYSIS. THESE COURSES WILL HELP PROFESSIONAL ENGINEERING CANDIDATES ON THE EXAMINATION ROUTE.

XIET-503 ENGINEERING ECONOMICS II 12 Weeks (DPE)

Prerequisite: XIET-403

or equivalent

Tuesday, 7 - 10 p.m.

Fee: \$70.00

Equipment replacement analysis, depreciation and taxes. Cost-revenue function, break-even analysis and the economics of mass production. Public economy and benefit-cost ratio.

Work scheduling techniques using arrow-diagram and linear programming subjects of Modi and Simplex.

Commencement date - Tuesday, January 11, 1983

The following Industrial Engineering subjects may be taught to groups in seminars or by other special arrangements. Contact the Continuing Education Office or the program supervisor, Industrial Engineering Section, Metals Department.

Subjects are:

- Methods Engineering
- Work Measurement
- Time Study
- MTM-I
- Facilities Planning and Layout
- Systems Design

The following courses are offered on pages

XDFTG-10**GENERAL DRAFTING****12 Weeks**

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XENGL-122**INTRODUCTORY REPORT WRITING****12 Weeks**

Page 45

XCT-108**INTRODUCTION TO BASIC****12 Weeks**

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XALG-001 (DPE)**ALGEBRA****14 Weeks**

Page 69

XALG-002 (DPE)**ALGEBRA****16 Weeks**

Page 69

XSTAT-001 (DPE)**STATISTICS I****12 Weeks**

Page 70

XACC-101**FINANCIAL ACCOUNTING I****15 Weeks**

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XORB-201**ORGANIZATIONAL BEHAVIOR****15 Weeks**

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OFFICE HOURS

August 30, 1982 to March 10, 1983

Monday to Thursday - 8:00 a.m. to 8:00 p.m.

Friday - 8:00 a.m. to 4:30 p.m.

December 16, 1982 to January 3, 1983

March 14, 1983 to August 29, 1983

Monday to Friday - 8:00 a.m. to 4:30 p.m.

REGISTRATION FOR THE ABOVE COURSES

FALL - June 2, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.

WINTER - November 2, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.

Check for registration location in your area.

WELDING ENGINEERING TECHNOLOGY

Journeyman welders interested in receiving a diploma in Welding Engineering Technology may take Continuing Education evening courses that will reduce the number of hours required as a full time day student. By taking Algebra, Basic Metallurgy, Drafting and Report Writing, one could then begin the WET program in the 2nd quarter beginning each January.

Other courses in the WET program are also available through Continuing Education however no other complete quarters may be covered in this manner.

XW-025 BASIC METALLURGY 12 Weeks

Prerequisite: See Below * Monday and Wednesday,
6:30 - 9:30 p.m.

Fee: \$221.00

This course is intended to give a basic understanding of metals and metallurgy to users, fabricators, welders, engineers and others who require such knowledge.

The following topics will be covered: mechanical properties of metals; the production of pig iron; manufacture of cast iron and steels; the forming and shaping of steel; heat treatment of steel and cast iron; the metallurgy of welding; nondestructive testing; corrosion; microscopic examination of metals; codes and specifications.

*The minimum prerequisite is Grade X, but a knowledge of Grade XII physics and chemistry will be most useful.

Commencement date - Monday, September 13

*Note: The following courses XW-026, XW-027, XW-028 and XW-029 are intended to assist "B" pressure welders in preparing for the "A" pressure examinations. A candidate for the "A" pressure must have a valid grade "B" pressure certificate, a good knowledge of Math 20, 22 or 23 and English 20, or 23. Also it would be beneficial to the candidate to have experience in several welding processes and the experience of dealing with A.S.M.E. codes for pressure vessels and piping systems.

XW-026 WELDING METALLURGY 8 Weeks

Prerequisite: XW-025 Monday and Wednesday,
See *Note 6:30 - 9:30 p.m.

Fee: \$149.00

This course is intended to give a broader understanding of welding metallurgy to welders, fabricators, inspectors, engineers, and others who require such knowledge.

The following topics will be covered: Welding processes, factors affecting weld metal cooling rate, effect of pre and post weld heat treatment, residual stresses in welded joints, study of weld and heat affected zone, welding of stainless steels, Schaeffler Diagram, carbide precipitation, sigma phase, welding of nonferrous metals, metallographic examination of welds.

Commencement date - Monday, January 10, 1983

XW-027 QUALITY CONTROL 5 Weeks

Prerequisite: *See Note Monday and Wednesday,
6:30 - 9:30 p.m.

Fee: \$95.00

Quality control and inspection — in the Welding Industry, the inspector and his duties, welding procedures, weld faults, destructive and nondestructive examination of welds.

Commencement date - Monday, September 14

XW-028 WELDING PROCESSES 5 Weeks

Prerequisite: *See Note Monday and Wednesday,
6:30 - 9:30 p.m.

Fee: \$95.00

Welding Processes — a study of the various welding procedures, gas and arc cutting techniques used in the manufacture of pressure vessels and metal structures. The course includes a study of A.W.S. filler metals, welding rods and electrodes.

Commencement date - Monday, October 26

XW-029 CODES 10 Weeks

Prerequisite: *See Note Monday and Wednesday,
6:30 - 9:30 p.m.

Fee: \$185.00

Pressure vessel design — Boiler and pressure vessel design in accordance with the ASME boiler and pressure vessel code. Included will be design calculations for shells, heads, nozzles, and reinforcing pads.

Commencement date - Monday, January 11, 1983

XW-030 CERTIFICATION OF WELDING INSPECTORS

Prerequisite: *See Note Monday and Wednesday,
6:30 - 9:30 p.m.

Fee: \$185.00

C.S.A. Standard W178.2. Certification of Welding Inspectors, is a certification service for individuals in the welding inspection field. Prerequisite XW025, XW026, XW027, XW028, and XW029 or a certificate in Welding Engineering Technology. The course is designed to prepare students for C.S.A. Standard W178.2 examination.

Commencement date - Monday, April 5, 1983

OFFICE HOURS

August 30, 1982 to March 10, 1983
Monday to Thursday - 8:00 a.m. to 8:00 p.m.
Friday - 8:00 a.m. to 4:30 p.m.

December 16, 1982 to January 3, 1983
March 14, 1983 to August 29, 1983
Monday to Friday - 8:00 a.m. to 4:30 p.m.

REGISTRATION FOR THE ABOVE COURSES

FALL — June 2, 1982 - 9:00 a.m. to 4:00 p.m. — resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
WINTER — November 2, 1982 - 9:00 a.m. to 8:00 p.m. — resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

WELDING

XW-010/XW-011 BEGINNERS COMBINED 20 Weeks WELDING or (Gas and Electric) 10 Weeks

Prerequisite: A good working knowledge of both written and spoken English

20 weeks –
Monday & Wednesday,
Tuesday & Thursday,
10 Weeks –
Monday & Wednesday
& Saturday,
Mon., Wed., Tues., Thur.,
7 - 10 p.m.
Saturday,
8:00 a.m. - 2:30 p.m.

Fee: \$425.00

GAS XW-010

The theory portion of this course will cover: the description of oxy-acetylene equipment, safety precautions involved with the care, use and handling of this equipment, flame types and uses, fluxes, rod types and uses. The shop portion will build the students' skills in the preparation and procedures for the fusion welding of mild steel and cast iron, the brazing of cast iron and mild steel. Flame cutting (manual and machine) Shop demonstrations will be given in low temperature brazing of copper, steel and aluminum, also the methods and procedures of hard surfacing.

ELECTRIC XW-011

This program is designed to give the student the first step in the basic knowledge of metallic arc welding and development of hand skills. Instruction in types of machines and control settings, basic routine maintenance, selection and care of mild steel welding electrodes and the effects of expansion and contraction.

NOTE: This program is at the pre-apprentice level and does not entitle a student to contest for a journeyman certificate.

Commencement date - Monday, October 4
Tuesday, October 5
Monday, January 10, 1983

XW-010 OXY-ACETYLENE WELDING 10 Weeks

Prerequisite: A good working knowledge of both written and spoken English

Monday and Wednesday
or Tuesday and Thursday,
7 - 10 p.m.

Fee: \$215.00

The Theory portion of this course will cover: the description of oxy-acetylene equipment, safety precautions involved with the care, use and handling of this equipment, flame types and uses, fluxes, rod types and uses. The shop portion will build students' skills in the preparation and procedures for the fusion welding of mild steel and cast iron, the brazing of cast iron

and mild steel. Flame cutting (manual and machine). Shop demonstrations will be given in low temperature brazing of copper, steel and aluminum, also the methods and procedures of hard surfacing.

NOTE: This program is at the pre-apprentice level and does not entitle a student to contest for a journeyman certificate.

Commencement date - Monday, October 4
Tuesday, October 5
Monday, January 10, 1983
Tuesday, January 11, 1983

XW-011 ELECTRIC WELDING 10 Weeks

Prerequisite: XW-010 oxy-acetylene welding

Monday and Wednesday
or Tuesday and Thursday,
7 - 10 p.m.

Fee: \$215.00

This program is designed to give the student the first step in the basic knowledge of metallic arc welding and development of hand skills. Instruction in types of machines and control settings, basic routine maintenance, selection and care of mild steel welding electrodes and the effects of expansion and contraction.

NOTE: This program is at the pre-apprentice level and does not entitle a student to contest for a journeyman certificate.

Commencement date - Monday, October 4
Tuesday, October 5
Monday, January 10, 1983
Tuesday, January 11, 1983

XW-012 ELECTRIC ARC UPGRADING 15 Weeks

Prerequisite: Alberta Second class welding certificate or Alberta temporary welding certificate or XW-011

Monday and Wednesday
or Tuesday and Thursday,
7 - 10 p.m.

Fee: \$320.00

This program is designed to up-grade and prepare an eligible welder for either a first or second class journeyman trades test providing the welder has the necessary knowledge of blue print reading, layout and symbols. Instruction will be given on machine types, machine controls, basic routine maintenance and safe handling of welding equipment. Recognition of metals, selection of electrodes, basic heat treatments, the effects and control of distortion, recognition and cause of weld faults, preparation, procedures and technique of welding. Flame cutting both hand and machine.

NOTE: When applying please quote your certificate number. Trade tests can only be arranged by the student through the Apprenticeship Board.

Commencement date - Monday, October 4
Tuesday, October 5
Monday, January 10, 1983
Tuesday, January 11, 1983

Applicants must supply Alberta welding certificate numbers when applying

REGISTRATION FOR THE ABOVE COURSES

FALL – June 2, 1982 - 9:00 a.m. to 4:00 p.m. – resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
WINTER – November 2, 1982 - 9:00 a.m. to 8:00 p.m. – resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

XW-015 PRESSURE "B" ELECTRIC ARC WELDING 8 Weeks

Prerequisite: Alberta First Class Welding Certificate P.W.-1
Monday, Wednesday & Saturday,
Monday and Wednesday,
7 - 10 p.m.
Saturdays
8 a.m. - 2:30 p.m.

Fee: \$341.00

This course is intended to up-grade first class journeyman welders to pressure "B" level and prepare them for the Pressure "B" examinations. Course content will include: Types of welding machines and electrodes which relate to "B" class welding, applicable codes and penalties from A.S.M.E. sections V, VIII and IX, pressure vessels and piping safety. Shop exercises will be done on 4" and 6" schedule 80 pipe.

NOTE: When applying please quote your certificate number.

Commencement date - Saturday, October 16
Saturday, January 8, 1983

XW-017 G.M.A.W. WELDING (M.I.G.) 5 Weeks

Prerequisite: Alberta temporary welding certificate first year apprentice XW-011
Monday, Wednesday & Saturday,
Monday and Wednesday,
7 - 10 p.m.
and Saturday
8 a.m. - 2:30 p.m.

Fee: \$215.00

The course will cover the theory of operation and some applications of the G.M.A.W. process. Laboratory exercises will consist mainly of mild steel plate and pipe.

NOTE: When applying for this program, please quote your certificate number. Apply to Boilers Branch for information on certificate.

Commencement date - Wednesday, November 17
Monday, March 28, 1983

XW-018 G.T.A.W. PIPE WELDING (T.I.G.) 5 Weeks

Prerequisite: Alberta second class welding certificate
Monday, Wednesday & Saturday,
Monday and Wednesday,
7 - 10 p.m.
and Saturday,
8 a.m. - 2:30 p.m.

Fee: \$215.00

This program is designed to add another process to a welder's skills.

This course will cover the theory of laboratory process of G.T.A.Q. (T.I.G.) welding. Laboratory exercises will be on mild steel plate and pipe, stainless steel pipe and the use of consumable inserts, purge gas, fill and cap (optional).

NOTE: When applying for this program please quote your certificate number. Apply to boilers branch for information on certificate.

Commencement date - Monday, September 27
Monday, February 14, 1983

XW-019 DOWN HAND PIPE WELDING 5 Weeks

Prerequisite: Alberta second class certificate
Monday, Wednesday & Saturday,
Monday and Wednesday,
7 - 10 p.m.
and Saturday,
8 a.m. - 2:30 p.m.

Fee: \$215.00

This program will cover the instruction and application of preparation, techniques and manipulative skills required for down hand pipe welding. The welding will be on pipe 16 inches in diameter with a wall thickness of 0.375.

NOTE: When applying please quote your certificate number.

Commencement date - Monday, January 10, 1983
Monday, May 9, 1983

OFFICE HOURS

August 30, 1982 to March 10, 1983
Monday to Thursday - 8:00 a.m. to 8:00 p.m.
Friday - 8:00 a.m. to 4:30 p.m.
December 16, 1982 - January 3, 1983
March 14, 1983 to August 29, 1983
Monday to Friday - 8:00 a.m. to 4:30 p.m.

Applicants must supply Alberta welding certificate numbers when applying

REGISTRATION FOR THE ABOVE COURSES

FALL - June 2, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
WINTER - November 2, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

DAY - WELDING

All industry has accepted Welding as a primary means of joining and repairing.

Due to the great advances in the welding processes and the projected requirements for the future industry of this province, it is foreseen that the welder will enjoy a successful career with the outlook of continuous advancement in this skill.

XDW-001 COMBINED OXY-ACETYLENE 5 Weeks AND ELECTRIC ARC WELDING

Prerequisite: Good working knowledge of both written and spoken English Monday to Friday 8:00 a.m. - 3:00 p.m.

Fee: \$455.00

Gas - Care, use and safe handling of equipment. Flame types and uses. Safety precautions and practices. Fluxes, rod types and uses. Oxy-acetylene Welding of steel and cast iron. Flame cutting (manual and machine). Demonstrations of low temperature brazing of copper, steel, aluminum and hard surfacing.

Arc - Types of machines, machine controls and maintenance. Electrodes, arc length metallic arc welding of steel, procedures and techniques. Recognition of metals. Expansion, contraction and control of distortion.

Commencement date - Monday, August 30
Monday, March 21, 1983

XDW-010 OXY-ACETYLENE WELDING 2 Weeks

Prerequisite: A good working knowledge of both written and spoken English Monday to Friday, 8:00 a.m. - 3:00 p.m.

Fee: \$185.00

The Theory portion of this course will cover: the description of oxy-acetylene equipment, safety precautions involved with the care, use and handling of this equipment, flame types and uses, fluxes, rod types and uses. The shop portion will build students' skills in the preparation and procedures for the fusion welding of mild steel and cast iron, the brazing of cast iron and mild steel. Flame cutting (manual and machine). Shop demonstrations will be given in low temperature brazing of copper, steel and aluminum, also the methods and procedures of hard surfacing.

Commencement date - Monday, November 15
Monday, March 7, 1983
Tuesday, May 24, 1983

XDW-003 ELECTRIC ARC WELDING 3 Weeks

Prerequisite: Alberta Second class welding certificate, or Alberta temporary welding certificate or XW-011 Monday to Friday 8:00 a.m. - 3:00 p.m.

Fee: \$275.00

Machine types, controls, settings and maintenance. Preparation, procedures, technique and safe handling of welding equipment. Recognition of metals, rod selection, basic heat treatments, distortion control and weld faults. Flame cutting both hand and machine.

Commencement date - Monday, October 4
Monday, March 14, 1983
Monday, May 9, 1983
Monday, June 13, 1983

XDW-004 PRESSURE "B" WELDING 3 Weeks

Prerequisite: Alberta First Class Journeyman Certificate or equivalent Monday to Friday 8:00 a.m. - 3:00 p.m.

Fee: \$275.00

This course is intended to upgrade 1st class journeyman welders to Pressure "B" examinations.

Course content will include: types of machines and electrodes which relate to pressure welding, applicable codes and penalties from A.S.M.E. Sections VIII and IX, pressure vessels and piping safety. Shop exercises done on 4" and 6" schedule 80 pipe.

Commencement date - Monday, November 29
Monday, January 10, 1983
Tuesday, May 24, 1983

XDW-005 M.I.G. OPERATOR 2 Weeks

Prerequisite: Good working knowledge of both written and spoken English Monday to Friday 8:00 a.m. - 3:00 p.m.

Fee: \$185.00

This course will cover theory and shop practice of semi-automatic welding. Shop exercise will mainly be on steel plate and pipe. Short arc, spray arc using solid and tubular wire processes.

Commencement date - Monday, November 22
Monday, May 30, 1983

XDW-006 T.I.G. WELDING OF PIPE 2 Weeks

Prerequisite: Second Class Welding Certificate or equivalent Monday to Friday 8:00 a.m. - 3:00 p.m.

Fee: \$185.00

This course will cover theory and shop practice in T.I.G. welding mild steel plate and pipe, alloy steel pipe, stainless steel pipe, and use of consumable inserts, purge gas and manual stock electrode fill and cap.

Commencement date - Monday, December 6
Monday, March 28, 1983
Monday, June 6, 1983

XDW-007 DOWNHAND PIPE WELDING 2 Weeks

Prerequisite: Second Class Journeyman Welding Certificate or equivalent Monday to Friday 8:00 a.m. - 3:00 p.m.

Fee: \$185.00

Downhand welding of large diameter pipe. This technique is used on gas and oil transmission lines.

Commencement date - Monday, November 29
Monday, February 14, 1983
Monday, June 6, 1983

REGISTRATION FOR THE ABOVE COURSES

FALL - June 2, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
WINTER - November 2, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

OIL AND GAS PRODUCTION ACCOUNTING

(THESE COURSES ARE NOT PART OF THE SAIT PETROLEUM DEPARTMENT)

The Canadian Association of Petroleum Production Accounting in cooperation with the Southern Alberta Institute of Technology offers a program in Oil and Gas Production Accounting. These courses are designed to upgrade the knowledge of those already in the production accounting field, and to improve the possibility of employment for those who wish to enter the field. Most of the lectures will be given by leaders in the industry.

The five courses listed below constitute the present program. Upon successful completion of the last four courses with a "C" or higher standing in each course, a certificate will be issued. Please contact Continuing Education 274-8881.

Students who have been granted permission to enter various levels of the program as a result of prior production accounting experience must still complete the final four courses with a "C" or higher standing in each course to obtain a certificate.

Please note that students entering the program based on experience are not granted exemption from the previous courses but rather permission to enter the program at a level other than the first. Students wishing to take courses based on production accounting experience must make application in writing to the Education Committee of the Canadian Association of Petroleum Production Accounting before registering.

Enrollment in each class will be limited. The outlined course content may be changed at the instructor's discretion.

For further information regarding these five courses, please contact Larry Rausch at 264-9380.

XPT-005 INTRODUCTION TO THE PETROLEUM INDUSTRY 8 Weeks

Prerequisite: None Thursday, 7 - 9 p.m.
Fee: \$53.00

This course will give the student a general background of the oil and gas industry. Lectures will be supplemented with extensive audio-visual packages. The course will be production accounting oriented and will enable the student to continue on in the production accounting program. Successful completion requires 70% class attendance.

Commencement date - Thursday, January 13, 1983

XPT-001 BASIC OIL AND GAS PRODUCTION 12 Weeks

Prerequisite: XPT-005 or 6 months Tuesday and Thursday,
oil industry experience 7:00 - 9:30 p.m.
Fee: \$59.00

This course is designed to prepare the student for a career in production accounting. Lectures and assignments will be given on the following subjects: geology and geophysics, scouting, land, reservoir engineering, drilling and completion, recompletion and work-overs, oil pipelines and pumping stations, field clerical procedures.

Enrollment limited to 90 students.

Commencement date - Tuesday, September 7
Thursday, September 9

XPT-002 INTERMEDIATE PRODUCTION ACCOUNTING (PART I) 12 Weeks

Prerequisite: XPT-001 or Tuesday or Thursday,
2 years Production 7:00 - 9:30 p.m.
Accounting experience
Fee: \$59.00

This course is designed so that the student may account for the production of (a) natural gas from the field to the trans-

mission company and, (b) oil from the wellhead to the battery. Lectures and assignments will be given on the following subjects: gas plant and field operations (including a field trip), gas measurement devices, gas measurement calculations, ERCB's Reports, E & NR Royalties, shallow gas and overview of other provinces' production reports.

Enrollment limited to 80 students.

Commencement date - Tuesday, January 11, 1983
Thursday, January 13, 1983

XPT-003 INTERMEDIATE PRODUCTION ACCOUNTING (PART II) 12 Weeks

Prerequisite: XPT-002 or 3 years Thursday, 7:00 - 9:30 p.m.
Production Accounting experience
Fee: \$59.00

This course is designed for those who are employed in the Petroleum Industry in a Production Accounting function. Lectures and assignments will be given on the following subjects: allowables for oil, Petroleum Marketing Commission reports, cost of service, material control, petroleum products marketing, and heavy oil.

Commencement date - Thursday, September 9

XPT-004 ADVANCED PRODUCTION ACCOUNTING 12 Weeks

Prerequisite: XPT-003 or 5 years Thursday, 7:00 - 9:30 p.m.
Production Accounting experience
Fee: \$59.00

This is an advanced course, designed mainly for those who are already in the industry in a production accounting function and deals primarily with the more complex aspects of production accounting. Lectures and assignments will be given on the following subjects: gas purchase contracts, cost control, processing costs and agreements. Alberta Government reports, joint interest and unitization.

Commencement date - Thursday, January 13, 1983

REGISTRATION FOR THE ABOVE COURSES

FALL - June 4, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
WINTER - November 4, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

PETROLEUM DEPARTMENT

DAY-CREDIT COURSES

The following courses parallel those being given during the day in the Petroleum Technology Program. These courses will be of interest to people desiring a more detailed course or to those people contemplating taking the day program in the future. It is recommended anyone considering the day program take XPT-121 Geology I and XTRIG-002 Trigonometry. For further information on credit courses contact the Petroleum Department at 284-8621.

XPT-111 DRILLING I 12 Weeks

Prerequisite: Alberta High School Diploma, C in Grade XII Math or applicable experience Monday and Wednesday, 7 - 10 p.m.

Fee: \$135.00

Land survey systems; Drilling Reservations and Leases; Petroleum Exploration Methods; Selection of a Well Site; Basic Principles of Rotary Drilling, component parts, rig personnel, drilling fluids, drilling economics, mud pumps, pump horsepower and volume output; Casing and Cementing, use of casing in drilling and completing wells, methods of cementing and cement additives; Hydraulics, Newtonian and plastic fluids, rheology of mud circulation system, calculation of friction and pressure drops in mud system.

Commencement date - Monday, September 13

XPT-212 DRILLING II 12 Weeks

Prerequisite: Drilling I Monday and Wednesday, 7 - 10 p.m.

Fee: \$135.00

Blowout prevention and control; Deviation control, survey instruments, straight hole drilling, directional drilling; Fishing, equipment and casing recovery; Formation Evaluation, Drill Stem Tests, Coring, Core analysis; Drilling information, Bit records, Penetration Rates, Mud data.

Commencement date - Monday, January 17, 1983

XPT-121 GEOLOGY I 12 Weeks

Prerequisite: None Tuesday and Thursday, 7 - 10 p.m.

Fee: \$135.00

This course will enable students to identify common rocks and minerals of Canada by the application of physical tests and to understand the processes by which the major rock types are formed. Emphasis will be placed on basic geological laws and processes and how they contribute to the features of the earth we see around us. Some of the topics to be considered include: origin of the earth; composition of the earth; common rock types; types of weathering; sedimentary structures; and earthquakes and volcanism. Local examples will be emphasized.

Commencement date - Tuesday, September 14

XPT-222 GEOLOGY II 12 Weeks

Prerequisite: Geology I or instructor's approval Tuesday and Thursday, 7 - 10 p.m.

Fee: \$135.00

This course will complement Geology I and will cover erosional and structural features. Some of the topics to be included are: folding; faulting; erosion and depositional features of water, glaciers and wind; and continental drift. The laboratory work will consist of various surface and subsurface mapping exercises.

Commencement date - Tuesday, January 18, 1983

XPT-313 PETROLEUM OPERATIONS I 12 Weeks

Prerequisite: None Tuesday & Thursday, 7 - 10 p.m.

Fee: \$135.00

Completion Methods, Cased hole, Open hole, Liners, Slim-hole, Perforation methods. Placing a well on production. Bottom Hole Pressure, Permeability, Wellhead and bottom hole equipment, Emulsions and Solid Deposition in oil and gas. Battery design, Proration, Artificial Lift, Types of flow. Use of gas lift.

Commencement date - Tuesday, September 14

XPT-424 PETROLEUM GEOLOGY 12 Weeks

Prerequisite: XPT-121, XPT-222, Monday and Wednesday, or equivalent 7 - 10 p.m.

Fee: \$135.00

Reservoir rocks, petroleum occurrences, origin and migration of hydrocarbons, petroleum traps, exploration and subsurface geological methods. The lab work will include description of well cuttings and core, isopach maps and reserve calculations, cross-section construction.

Commencement date - Monday, September 13

XPT-415 PETROLEUM OPERATIONS II 12 Weeks

Prerequisite: Petroleum Operations I Tuesday & Thursday, 7 - 10 p.m.

Fee: \$135.00

Reservoir fluids - definitions, laws, properties, gas laws; Bottom Hole pressure determinations, calculation, E.R.C. B chart method, Reservoir averages; Productivity of Oil Wells; P.I., Vogel's IPR, Vertical flow, Artificial lift; Productivity of gas wells, A.O.F. plots, Gas handling facilities, hydrates, dehydrators, heaters, gas processing facilities.

Commencement date - Tuesday, January 18, 1983

XPT-526 FORMATION EVALUATION 10 Weeks

Prerequisite: Petroleum Geology Tuesday & Thursday, (XPT-424) 7 - 10 p.m.

Fee: \$113.00

Petrophysical properties of rocks - electrical and nuclear properties, elastic wave propagation; reservoir fluid properties affecting log types and instruments used; qualitative interpretation of rock types, porosity, pore content, permeability, quantitative interpretation of logs - calculation of R_w , determination of formation factor, calculation of porosity and salt water saturation, determination of lithology; comprehensive interpretation; planning logging program.

Commencement date - Tuesday, September 14

REGISTRATION FOR THE ABOVE COURSES

FALL - June 2, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
WINTER - November 2, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

GEOLOGICAL CERTIFICATE PROGRAM

The six course program has been designed for geological assistants wanting more information on the practical aspects of geology. The program will be of interest to people just getting into the industry or for those wishing to learn some of the basic geological procedures.

Each of the six, four week courses will include lab exercises and/or examinations with a minimum of a C standing being required in all six courses before a certificate will be granted. This program, although containing elements from the regular day program, does not transfer directly to any one course.

Further information may be obtained by contacting the Petroleum Department Head at 284-8621.

XPT-101 ROCKS AND MINERALS 4 Weeks

Prerequisite: None Monday and Wednesday,
7 - 10 p.m.

Fee: \$61.00

An introduction to the identification of rocks and minerals, sample description and core descriptions.

Commencement date - Monday, September 13

XPT-102 PHYSICAL AND HISTORICAL GEOLOGY 4 Weeks

Prerequisite: XPT-101 Monday and Wednesday,
7 - 10 p.m.

Fee: \$48.00

Discussion of faulting, folding, unconformities and the geology of western Canada along with appropriate lab exercises.

Commencement date - Wednesday, October 13

XPT-103 PETROLEUM GEOLOGY 4 Weeks

Prerequisite: XPT-102 Monday and Wednesday,
7 - 10 p.m.

Fee: \$48.00

The origin of oil and gas, the types of reservoirs and the conditions required to trap hydrocarbons. The exercises will centre around core and sample descriptions.

Commencement date - Wednesday, November 10

XPT-104 MAPPING TECHNIQUES 4 Weeks

Prerequisite: XPT-103 Monday and Wednesday,
7 - 10 p.m.

Fee: \$48.00

Various lab exercises will be used to demonstrate the construction of contour maps, cross-sections and facies maps.

Commencement date - Monday, January 17, 1983

XPT-105 INTRODUCTION TO LOG ANALYSIS 4 Weeks

Prerequisite: XPT-104 Wednesday and Monday,
7 - 10 p.m.

Fee: \$48.00

Logs and Log analysis will be introduced. The various types will be discussed and practical problems on logs will be assigned.

Commencement date - Monday, February 14, 1983

XPT-106 GEOPHYSICAL DATA PROCESSING 4 Weeks

Prerequisite: XPT-105 Monday and Wednesday,
7 - 10 p.m.

Fee: \$48.00

An introduction to geophysical exploration methods; normal data flow in digital processing; preparation of raw field data for input into computer processing programs; basic mapping techniques.

Commencement date - Monday, March 14, 1983

NON-CREDIT COURSES

XPT-012 OIL GEOLOGY I 12 Weeks

Prerequisite: Some general geology strongly advised Monday, 7 - 9 p.m.

Fee: \$48.00

Emphasis is on geology as applied to the petroleum industry. The following topics will be covered: sedimentary rock types and environments of deposition, concepts of porosity, permeability and reservoir rock, introduction to the Geologic Time Scale and a detailed coverage of the stratigraphy of Western Canada. The latter topic will emphasize the important hydrocarbon-bearing formations and fields. Practical exercises will include the examination of cores, hand-specimens and well cuttings under the microscope. Any sidelights which students are interested in may be pursued eg. "frontier" exploration, coal geology.

This course should appeal to those in or proposing to enter the petroleum field in geologically-oriented positions.

Commencement date - Monday, September 13

XPT-022 OIL GEOLOGY II 12 Weeks

Prerequisite: XPT-012 Tuesday, 7 - 10 p.m.

Fee: \$70.00

A 3-hour per week schedule will enable the students to work on involved practical exercises more frequently. These will include mainly contour map and cross-section interpretation, and geophysical wireline log analysis. Other topics will include: origin, composition, migration and trapping of oil and gas, basic structural geology, and seismic exploration. Sidelights may be pursued separately or in concert with the subjects above e.g. "enhanced" recovery-oil, "unconventional" oil deposits.

This course should interest persons in or preparing to enter the petroleum field in geologically-oriented capacities.

Commencement date - Tuesday, January 18, 1983

XPT-011 BASIC PRODUCTION OPERATIONS 12 Weeks

Prerequisite: None Wednesday, 7 - 10 p.m.

Fee: \$70.00

Putting a well in production, (Drilling Casing, Wellheads), Completions, Perforating, Stimulations, Artificial Lift, Dynamometers, Battery Operation, Service Rigs, Gas Processing, Process Controls, Safety Equipment.

Lectures will be supported by films, demonstrations and Field Trips, where possible.

Commencement date - Wednesday, September 15

REGISTRATION FOR THE ABOVE COURSES

FALL - June 2, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.

WINTER - November 2, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.

Check for registration location in your area.

XPT-014 DRILLING AND 10 Weeks
PRODUCTION FOR SECRETARIES

Prerequisite: None Thursday, 7 - 10 p.m.

Fee: \$59.00

The course provides an introduction to drilling and production options. Topics to be included are rotary drilling and equipment, drilling fluids, drill stem testing, well logging, cementing, perforation and well completion. Where possible the course will be supplemented with field trips.

Commencement date - Thursday, January 27, 1983

OFFICE HOURS

August 30, 1982 to March 10, 1983

Monday to Thursday - 8:00 a.m. to 8:00 p.m.

Friday - 8:00 a.m. to 4:30 p.m.

December 16, 1982 to January 3, 1983

March 14, 1983 to August 29, 1983

Monday to Friday - 8:00 a.m. to 4:30 p.m.

REGISTRATION FOR THE ABOVE COURSES

FALL — June 2, 1982 - 9:00 a.m. to 4:00 p.m. — resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.

WINTER — November 2, 1982 - 9:00 a.m. to 8:00 p.m. — resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.

Check for registration location in your area.

PHOTOGRAPHIC ARTS DEPARTMENT

NOTE: The following list of courses is representative of courses offered by Continuing Education at SAIT. Courses tailored to the needs of your group or company can be arranged upon request.

***TEST FEE — \$15.00**

XCOM-001 BASIC PHOTOGRAPHY — CORRESPONDENCE COURSE

At last a photography course you can take right in your own home, simply by tuning your television set to Channel 13. It's designed for the person who wants to know more about cameras, and more about photographic practices and processes; in other words, more about taking good pictures.

This Basic Photo Correspondence course is offered by the Southern Alberta Institute of Technology and is a comprehensive learning package. It consists of 15 modular units, each unit having 3 components:

1. A video program
2. A modular booklet providing:
 - a. reference material
 - b. optional exercise
 - c. progress-evaluation exam
3. A SAIT Photography Instructor to:
 - a. assist you with any problems
 - b. provide a critique on your work

Module Titles:

1. The Camera
2. Camera handling
3. The Shutter
4. The Lens: focal depth
5. The Lens: F stops
6. Depth of Field
7. Black and white film
8. Exposure
9. Exposure meters
10. Manual vs. automatic
11. Filters in photography
12. Filters in color photography
13. Lighting for photography
14. Close up photography
15. Composition in Photography

The video portion of the course is available on Channel 13, CETC. Each module will be broadcast five times per week:

Sunday at 1:00 p.m.
Monday at 7:00 p.m.
Tuesday at 9:00 a.m.
Wednesday at 3:00 p.m.
Thursday at 7:30 p.m.

This schedule continues for all fifteen modules. People registered in the course can request broadcasts of any module for viewing at 6:30 p.m. Wednesday or 2:30 p.m. Saturday.

The fee for the course is \$60.00. In addition, you may spend up to \$35.00 completing the optional exercises and assignments.

The first module will be broadcast beginning the week of September 5, 1982, and January 9, 1983.

NOTE: This course assumes you have cable TV in your home, in order to receive the complete course.

XCOM-200 BASIC PHOTOGRAPHY 6 Weeks

Prerequisite: None

Monday or Tuesday
or Wednesday or Thursday
6:45 - 9:45 p.m.

Fee: \$32.00

This is an introductory course for those persons interested in the technical use and general application of adjustable cameras. While it is not necessary to own a camera to successfully complete the course, many students find the course easier to understand if they have access to a camera. The camera should be brought to the first class. At the conclusion of the course, the student will have a working knowledge of photography including types of cameras, lenses, film, exposure, filters, lighting, and composition. While the bulk of the course is photographic theory, non-compulsory practical assignments will be given. Upon successful completion of this course, students should consider gaining additional practical experience by taking one of the many other courses offered in the Photographic Art Department. No processing lab time is provided.

Text cost approximately \$7.00.

Supplies & Services approx. \$20.00 (optional).

Commencement date - Monday, September 13
Tuesday, September 14
Wednesday, September 15
Thursday, September 16
Monday, November 1
Tuesday, November 2
Wednesday, November 3
Thursday, November 4
Monday, January 10, 1983
Tuesday, January 11, 1983
Wednesday, January 12, 1983
Thursday, January 13, 1983
Monday, February 28, 1983
Tuesday, March 1, 1983
Wednesday, March 2, 1983
Thursday, March 3, 1983

XCOM-300 INTERMEDIATE PHOTOGRAPHY 6 Weeks

Prerequisite: XCOM-200 or Basic Photo Course from other Post Secondary Institution

Fee: \$39.00

This course is designed for the serious student seeking a deeper knowledge of photographic technique. The program starts where Basic Photography finishes and includes, photographic optics, films, exposure, and accessory equipment. The course will to a considerable degree be built around student needs and problems. Compulsory picture assignments will be given with follow-up critiques which count toward the final student mark.

Supplies and services cost approximately \$25.00.

Commencement date - Thursday, September 16
Thursday, November 4
Thursday, January 13, 1983
Thursday, March 3, 1983

REGISTRATION FOR THE ABOVE COURSES

FALL — June 2, 1982 - 9:00 a.m. to 4:00 p.m. — resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
WINTER — November 2, 1982 - 9:00 a.m. to 8:00 p.m. — resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

XCOM-401 STUDIO LIGHTING 6 Weeks

Prerequisite: XCOM-200 or Basic Tuesday or Thursday,
Photo Course from other Post 7 - 10 p.m.
Secondary Institution

Fee: \$68.00

At the conclusion of this course the student will have an understanding of the principles of lighting and its implications in any photographic situation. Special emphasis will be given to fashion portraits, full-length and figure photography. Compulsory assignments will be done in class.

Supplies cost approximately \$35.00.

Text cost approximately \$7.00.

Commencement date - Tuesday, September 14
Thursday, September 16
Tuesday, November 2
Thursday, November 4
Tuesday, January 11, 1983
Thursday, January 13, 1983
Tuesday, March 1, 1983
Thursday, March 3, 1983

XCOM-402 PRODUCT PHOTOGRAPHY 8 Weeks

Prerequisite: XCOM-200 or Wednesday, 7 - 10 p.m.
Basic Photo course from other
Post Secondary Institution

Fee: \$68.00

At the conclusion of this program, the student will have a basic understanding of the concept, related to the still photography of objects for the purpose of advertising, promotional or instructional illustration. Compulsory assignments will be given. Class is mainly demonstration and working lab.

Text approximately \$20.00.

Supplies approximately \$20.00.

Commencement date - Wednesday, September 15
Wednesday, January 12, 1983

XCOM-403 CLOSE-UP PHOTOGRAPHY 4 Weeks

Prerequisite: XCOM-200 or Alternate Mondays,
Basic Photo Course from other 6:30 - 9:30 p.m.
Post Secondary Institution

Fee: \$41.00

At the conclusion of this program the student will be able to properly calculate for scale and exposure and use close-up camera accessories including flash, supplementary lenses, extension tubes and bellows. Compulsory assignments will be given. Classes are held every second week thereby allowing time for return of assignment from laboratory or processing by the student.

Text approximately \$7.00.

Student must supply own close up equipment.

Commencement date - Monday, September 13
Monday, November 1
Monday, January 10, 1983
Monday, February 28, 1983

XCOM-404 AVAILABLE LIGHT 4 Weeks
PHOTOGRAPHY

Prerequisite: XCOM-200 or Basic Alternate Thursdays
Photo Course from other Post 6:30 - 9:30 p.m.
Secondary Institution

Fee: \$27.00

At the conclusion of this program the student will have basic knowledge of the practices and requirements of available light photography. Included will be theory and demonstrations regarding film selection, camera handling, proper exposure determination under varying lighting conditions, modifying film speed, and critique of students' past work as well as the work produced during the program from compulsory assignments. Classes are held every second week thereby allowing return of assignments from the laboratory or processing by the student.

Commencement date - Thursday, September 16
Thursday, November 4
Thursday, January 13, 1983
Thursday, March 3, 1983

XCOM-408 WILDLIFE 6 Weeks
PHOTOGRAPHY

Prerequisite: XCOM-200 or test* Thursday, 7 - 10 p.m.

Fee: \$39.00

This course will include formal lectures and a field trip with a final critique session. At the conclusion of the course the student will be able to apply his knowledge of scenic and wildlife photography.

Classes are held every week for six weeks. Compulsory assignments will be given.

Commencement date - Thursday, September 16
Thursday, March 3, 1983

XCOM-500 BASIC DARKROOM 12 Weeks
TECHNIQUES

Prerequisite: XCOM-200 or Basic Monday, or Tuesday
Photo Course from other Post 7 - 10 p.m.
Secondary Institution or Saturday,
9:00 - 12:00 noon

Fee: \$113.00

This is an introductory course in black and white negative developing and printing designed for the student having no or minimal darkroom experience. At the conclusion of the program the student will have knowledge of and be able to apply that knowledge to black and white film developing, negative quality determination, paper contrasts, burning and dodging techniques, basic print taking assignments, retouching and mounting. Compulsory picture taking assignments will be given. The student may bring exposed film for processing and processed negatives for printing to the first session. Chemicals are supplied by the Institute, however, the student must supply his own film, paper, mount board and dry-mount tissue.

Text cost approximately \$20.00.

Supplies approximately \$35.00. These should not be purchased until after first class.

* Commencement date - Monday, September 13
Tuesday, September 14
Saturday, September 18
Monday, January 10, 1983
Tuesday, January 11, 1983
Saturday, January 15, 1983

REGISTRATION FOR THE ABOVE COURSES

FALL — June 2, 1982 - 9:00 a.m. to 4:00 p.m. — resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. Until courses fill.
WINTER — November 2, 1982 - 9:00 a.m. to 8:00 p.m. — resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

XCOM-501 ADVANCED DARKROOM 12 Weeks
TECHNIQUES

Prerequisite: XCOM-500 or Monday, 7 - 10 p.m.
Coordinator's permission
Fee: \$86.00

This is an advanced course in black and white negative developing and printing designed for the student who is already capable of producing good quality standard black and white prints but who desires to learn special techniques for more creative printing. Upon completion of the course the student will be able to employ: solarization, bas-relief, vignetting, diffusion, high contrast, toning and texturing. Compulsory picture taking assignments will be given. The student must bring processed negative for printing on the first session. Chemicals are supplied by the Institute, however, the student must apply his own film, paper, mount board and dry-mount tissue.

Text cost approximately \$10.00.

Supplies approximately \$35.00.

Commencement date - Monday, September 13
Monday, January 10, 1983

XCOM-600 COLOR PRINTING 12 Weeks

Prerequisite: XCOM-500 or Wednesday, 6:30 - 9:30 p.m.
Coordinator's permission
Fee: \$113.00
*(Fee includes chemicals)

This is a basic course in color printing which can be adapted to home use with a minimum of expense. Upon completion of the course the student will be familiar with and be able to effectively employ subtractive color theory, the use of printing filters, drum type developing tanks, color chemistry as applied to negative and reversal printing and the processing of color negative and color reversal films. *Chemicals will be supplied by the Institute, however the student supplies his own film and paper. Supplies should not be purchased until completion of the first evening lecture.

Text cost approximately \$20.00.

Supplies cost approximately \$50.00.

Commencement date - Wednesday, September 15
Wednesday, January 12, 1983

XCOM-602 CIBACHROME 6 Weeks
COLOR PRINTING

Prerequisite: XCOM-500 or Thursday, 7 - 10 p.m.
Coordinator's permission
Fee: \$68.00

This is a basic color printing course which may be adapted to home use with a minimum of expense. Upon completion of the course the student will be able to employ the subtractive reversal color theory, the use of color printing filters, drum type processing tubes, color chemistry as applied to color reversal films. Chemicals will be supplied by the Institute. Students must supply their own film, paper and camera equipment. Supplies should not be purchased until completion of the first evening lecture.

Text cost approximately \$8.95.

Supplies approximately \$50.00.

Commencement date - Thursday, September 16
Thursday, January 13, 1982

XCOM-603 COLOR SLIDE CRITIQUE 6 Weeks

Prerequisite: XCOM-200 or basic Wednesday, 7 - 10 p.m.
Photo Course from other Post
Secondary Institution
Fee: \$37.00

This reversal color course will be comprised of photographic assignments and weekly lectures and discussions. A different project will be announced each week; the processed and mounted slides will be viewed for the classroom critiques. Two assignments will be manually hand processed by the students to simulate a home processing situation. The remainder of assignments will not be processed at the Institute, but will be the responsibility of the students to have processed. The chemicals for the two processing sessions will be supplied by the Institute. Students are responsible for their own color film and camera equipment.

Student supplies cost approximately \$55.00.

Commencement date - Wednesday, September 15
Wednesday, November 3
Wednesday, January 12, 1983
Wednesday, March 2, 1983

XCOM-120 PHOTOGRAPHIC PRINT 6 Weeks
CRITIQUE

Prerequisite: XCOM-500 or Tuesday, 7 - 10 p.m.
Coordinator's permission
Fee: \$37.00

This course consists of picture taking and printing assignments with weekly group discussion and critique sessions. A different project will be announced each session; the finished, retouched, and mounted print being due two weeks later. Participants may work in black and white or colour at their own discretion. For the first session, each student must present an 8" x 10" scenic dry-mounted on an 11" x 14" or larger mount. For the second session, the assignments will be an adult portrait using window light. Subsequent assignments will be announced as the course progresses. At the completion of this course the student will be capable of producing and evaluating high quality prints. Institute darkrooms will not be made available for completion of projects, therefore the student must have access to other facilities.

Supplies approximately \$50.00. Limited enrollment.

Commencement date - Tuesday, September 14
Tuesday, November 2
Tuesday, January 11, 1983
Tuesday, March 1, 1983

XCOM-130 SLIDE PRESENTATION 9 Weeks
TECHNIQUES

Prerequisite: Basic Photo would Tuesday, 7 - 10 p.m.
be an asset
Fee: \$113.00

At the conclusion of this program the student will have a basic knowledge of and will be able to script, edit, title and audio record in the interest of producing tape/slide story presentations. The student must have a single lens reflex camera and a tape recorder which will be required for "out-of-class" work.

Supplies approximately \$30.00.

Commencement date - Tuesday, September 14
Tuesday, January 11, 1983

REGISTRATION FOR THE ABOVE COURSES

FALL - June 2, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
WINTER - November 2, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

XCOM-800**AUDIO VISUAL
TECHNIQUES****12 Weeks**Prerequisite: Basic Photo would
be an asset

Monday, 7 - 10 p.m.

Fee: \$113.00

This is a two-part course. The first 6 weeks will consist of one night's instruction in each of the following: writing for audio-visual media, photography, film making, sound recording and mixing and, graphic art for audio-visual media. During the second 6 weeks of the course each student will produce an individual project. The choice of the media which will be used for this project is up to the student (overhead transparencies, film, slide/tape, etc.). SAIT can supply a limited amount of equipment, however it is expected the student must also have access to some production equipment on his/her own.

*Fee includes certain materials. Class is limited in size. Supplies cost approximately \$25.00.

Commencement date - Monday, September 13
Monday, January 10, 1983

XCOM-900 35mm PHOTOGRAPHY 12 Weeks

Prerequisite: None

Tuesday, 7 - 10 p.m.

Fee: \$113.00

This course is designed for the person who would like to utilize full advantage of the small format camera, as well as study proper darkroom techniques. Film processing and darkroom procedures will be discussed to control the negative and print quality. Each lesson will deal with a new topic, leaving time for darkroom usage. The institute will supply all the necessary chemicals, but, the student must supply all film, paper, and camera equipment.

Supplies approximately \$40.00.

Commencement date - Tuesday, September 14
Tuesday, January 11, 1983

XCOM-902 HISTORY OF PHOTOGRAPHY 6 Weeks

Prerequisite: None

Wednesday, 7 - 9 p.m.

Fee: \$27.00

This course will introduce students to the history of photography from earliest times to the present day. The evolution of photography and the work of the major photographers will be considered in illustrated lectures. An essential course for the serious student of photography.

Commencement date - Wednesday, September 15
Wednesday, November 3
Wednesday, January 12, 1983
Wednesday, March 2, 1983

XCOM-601**PHOTOGRAPHIC
RETOUCHING****6 Weeks**

Prerequisite: None

Tuesday, 7 - 10 p.m.

Fee: \$68.00

Although much caution is exercised when photographing and developing prints, corrections are often required to improve their appearance. This course is designed for the beginner to learn how to make minor corrections on prints. Skills are maintained and increased by continued practice during and after lessons.

Types of retouching covered in this course are lead pencil retouching, etching, B/W dye retouching, bleaching, coloured dye retouching, pastel retouching and opaque oil corrections. Later on in the course students are encouraged to bring in prints, with which they may be encountering difficulties.

Cost of supplies for the course will be approximately \$25.00.

Commencement date - Tuesday, September 14
Tuesday, November 2
Tuesday, January 11, 1983
Tuesday, March 1, 1983

OFFICE HOURS

August 30, 1982 to March 10, 1983
Monday to Thursday - 8:00 a.m. to 8:00 p.m.
Friday - 8:00 a.m. to 4:30 p.m.
December 16, 1982 to January 3, 1983
March 14, 1983 to August 29, 1983
Monday to Friday - 8:00 a.m. to 4:30 p.m.

REGISTRATION FOR THE ABOVE COURSES

FALL - June 2, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
WINTER - November 2, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

POWER ENGINEERING DEPARTMENT

XPET-010 POWER ENGINEERING (FOURTH CLASS) 24 Weeks

Prerequisite: None Theory - Tuesday, 72 hours
7 - 10 p.m.
*Laboratory - Thursday, 12 hours
7 - 10 p.m.

Fee: \$178.00

This course is designed to assist those preparing to write the Fourth Class examination under the Boilers Act. It will also be of value to those with little previous operation experience and those in allied trades who wish to increase their understanding of the subject.

Theory consists of the basic principles of construction, operation and maintenance of boilers, boiler-room auxiliaries, and prime movers. Combustion, feedwater treatment, refrigeration, and electricity are also covered.

*Practical instruction consists of 12 hours in the Power lab. on boilers, auxiliaries, automatic controls, and prime movers. These hours will be held on four Thursday evenings, designated by instructor.

Credit of six months in lieu of practical experience towards a Fourth Class Engineers' examination will be granted to successful students.

Correspondence notes may be purchased for cost of materials only, approximately \$36.00.

Commencement date - Tuesday, September 7

XPET-011 POWER ENGINEERING (THIRD CLASS) 24 Weeks

Prerequisite: Math 10 or 12 or Principles of Mathematics - Section I (Correspondence) Fourth Class Cert or equivalent Theory - Monday, 72 hours
6:30 - 9:30 p.m.
*Laboratory - Thursday
12 hours
6:30 - 9:30 p.m.

Fee: \$178.00

This course is designed to assist power engineers who are preparing to write for their Third Class Alberta Certificate. The following subjects will be introduced to a level suitable for the Third Class examination codes, prime movers, boiler plants, feed water treatment, combustion, applied mechanics, thermodynamics, refrigeration, air conditioning and electro-technology, metric calculations.

*Four Thursday evenings designated by instructor, will be spent in the Thermodynamics Laboratory and the student will have the opportunity to operate a water tube and a fire tube boiler, reciprocating engines, complete turbine installation, ammonia refrigeration plant.

Credit of four months in lieu of practical experience towards a Third class Engineers' examination will be granted by the Alberta Boilers Branch to successful students.

Correspondence notes may be purchased for cost of materials only, approximately \$50.00.

Commencement date - Monday, September 13

XPET-012 POWER ENGINEERING (PART "A") 24 Weeks

Prerequisite: Alberta Third Class or equivalent Wednesday, 7 - 10 p.m.
Fee: \$135.00

This course is designed to assist engineers who are preparing to write Part "A" of the Second Class or First Class Alberta Certificate examinations. The subjects covered will be Applied Mechanics and Thermodynamics, with approximately half of the course being spent on each.

Applied Mechanics - vectors and vector diagrams; velocity and acceleration; work, power and energy; friction; moments; machines; strength of materials; beams, bending and stress; torsion; fluid flow. Also some work on the use of logarithms.

Thermodynamics - heat and heat transfer; laws of gases expansion and compression of gases; combustion; steam; steam tables; entropy; Enthalpy; entropy diagrams; turbines engines; power and efficiency.

Credit of two months in lieu of practical experience towards a Second or First class engineers' examination will be granted by the Alberta Boilers Branch to successful students.

Correspondence notes may be purchased for the cost of materials.

Commencement date - Wednesday, September 22

XPET-014 POWER ENGINEERING (PART "B") 24 Weeks

Prerequisite: Alberta Third Class or equivalent Tuesday, 7 - 10 p.m.
Fee: \$135.00

This course is designed to assist engineers who are preparing to write Part "B" of the Second Class or First Class Alberta Certificate examinations. The topics covered are as listed below.

Prime Movers - steam turbines; flow diagrams; efficiencies; heat rate; water rate; theory of nozzles; turbine performance curves; turbine blade calculations.

Electrotechnology - series and parallel circuits; single phase and three phase circuits; dc generators and motors; ac generators and motors; transformers; Electronics.

Air Compression - Compressor types; compressor calculations.

Nuclear Power - basic nuclear physics; nuclear fuels and reactors; reactor systems.

Metallurgy - structure of metals; properties of metals; heat treatment of metals.

Materials Testing - mechanical and non-destructive testing.

A.S.M.E. Welding Code - qualification of welding procedures; qualification of welding operators.

Refrigeration - types of systems; calculations.

Credit of two months in lieu of practical experience towards a Second or First Class Engineers' examination will be granted by the Alberta Boilers Branch to successful students.

Commencement date - Tuesday, September 14

REGISTRATION FOR THE ABOVE COURSES

FALL - June 1, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
WINTER - November 1, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

XIIT-026 PROCESS MEASUREMENT I 14 Weeks

Prerequisite: Grade XI Physics and Math
or equivalent Monday,
7 - 10 p.m.

Fee: \$131.00

Covers physics related to process measurement including pressure, force, properties of matter; basic AC and DC fundamentals; SI units. Topics include measurement of volume, density, pressure, weight and level. Transmitter and recorder operation, installation and preventive maintenance procedures are emphasized. Theory will be supplemented by lab projects.

Textbook cost approximately \$20.00.

Commencement date - Monday, September 13

XIIT-027 PROCESS MEASUREMENT II 14 Weeks

Prerequisite: Process Measurement I
or equivalent Monday,
7 - 10 p.m.

Fee: \$131.00

Will include measurement of temperature flow, Temperature studies involve filled systems, thermocouples, resistance bulbs, potentiometer and Wheatstone bridge principles, indicators and recorders. Flow studies include measurement methods, fluid dynamics, Bernoulli's theorem, installation technique, metering and indicating devices, square root extraction, flow calculations. Theory will be supplemented by lab projects.

Textbook cost \$20.00.

Commencement date - Monday, January 10, 1983

XIIT-036 CONTROL PRINCIPLES 14 Weeks

Prerequisite: Process Measurement II
or equivalent Tuesday,
7 - 10 p.m.

Fee: \$131.00

Study of an elementary control loop; controllers — principle of operation, on-off proportional, integral, and derivative modes; Automatic/1 Manual Transfer Stations; procedures; control valves — types of valve bodies, valve flow characteristics, valve sizing procedures, cavitation and noise control; pressure reducing valves; valve actuators — diaphragm, piston, and electrohydraulic; valve positioner purpose, principle of operation, signal splitting; current to air and air to current transducers. Installation, specification, calibration and maintenance procedures are included. Laboratory exercises will help in obtaining skills in calibration and repair of the above instruments.

Textbook cost approximately \$20.00.

Commencement date - Tuesday, September 7

XIIT-037 PROCESS CONTROL SYSTEMS 14 Weeks

Prerequisite: Control Principles
or equivalent Tuesday,
7 - 10 p.m.

Fee: \$131.00

Topics covered are computing relays, alarm systems, high and low signal limited devices, ISA signals. Feed forward, cascade, ratio, multivariable control systems. Application of the above methods to the control of combustion systems, boiler feed-water, pumps and compressors, distillation and absorption columns, and heat exchangers. Control system tuning; system trouble shooting; preventive maintenance will be included.

Textbook cost approximately \$20.00.

Commencement date - Tuesday, January 11, 1983

XIIT-028 ANALYTICAL INSTRUMENTATION & MEASUREMENT I 14 Weeks

Prerequisite: Chemistry 30 or
Equivalent Thursday,
7 - 10 p.m.
Physics 30 or
equivalent

Fee: \$131.00

Indepth study of Gas Chromatographic laboratory and Process Systems covering detector, column, and sampling configuration. Combustion Analyzers such as Relative Humidity, Oxygen, Co₂, and NO_x will be discussed. Emphasis will be on modern system theory, design and operation and will include latest available MPU Applications. Theory will be supplemented by laboratory projects.

Text approximately \$20.00.

Commencement date - Thursday, September 9

XIIT-029 ANALYTICAL INSTRUMENTATION & MEASUREMENT II 14 Weeks

Prerequisite: Analytical Instrumentation I,
Chemistry 30, Physics 30
or equivalent Thursday,
7 - 10 p.m.

Fee: \$131.00

Indepth study of pH, selection ion, and specific conductance monitors in closed loop configuration. Environmental analyzers including source SO₂ and ambient SO₂, NO_x, and others will be discussed. Data logging and MPU applications will be considered wherever applicable. Vibration analyzers and indepth analyses of rotating systems will be covered. Emphasis will be on modern system design, theory, and operation. Theory will be supplemented by laboratory projects.

Textbook - approximately \$20.00.

Commencement date - Thursday, January 13, 1983

**XPET-016 BUILDING OPERATOR A 14 Weeks
(HEATING)**

Prerequisite: Building Monday and Thursday,
Operator B or experience 7:00 - 9:30 p.m.
in Building Operations

Fee: \$163.00

This course is intended to give the building operator, resident-manager, or custodian a better understanding of the basic principles of heating, operation and maintenance of mechanical and electrical equipment used in heating and ventilating systems of large modern schools, apartments and office buildings, and to assist him in the preparation for the examination for the Building Operator A certificate under the Alberta Boilers Act.

Classroom instruction will cover: Elementary mechanics and thermodynamics; low pressure heating boilers, auxiliary equipment and controls; pumps, piping, water supply systems and water heaters; warm air, steam, hydronic, radiant, snow melting and electric heating systems; ventilation; heating controls; building safety; basic plumbing.

Practical demonstrations will be included where applicable.

Textbook cost approximately \$30.00.

Commencement date - Monday, September 13

**BUILDING OPERATOR A
(Air Conditioning)**

See Electrical Section

REGISTRATION FOR THE ABOVE COURSES

FALL — June 1, 1982 - 9:00 a.m. to 4:00 p.m. — resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.

WINTER — November 1, 1982 - 9:00 a.m. to 8:00 p.m. — resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.

Check for registration location in your area.

XPET-017 BUILDING OPERATOR B 14 Weeks
(BASIC BUILDING OPERATION)

Prerequisite: None Wednesday, 7 - 10 p.m.

Fee: \$81.00

This course introduces the basic principles of design, operation, and maintenance of mechanical and electrical equipment used in smaller schools, offices, apartment buildings, etc.

It is intended for operators, resident-managers, or custodians who wish to prepare themselves to write the examination for the Building Operator B certificate under the Alberta Boilers Act.

Classroom instruction will cover: Low pressure heating boilers, auxiliary equipment and controls; basic heating systems and controls; basic electricity; basic plumbing; building safety.

Practical demonstrations will be included where applicable.

Textbook cost approximately \$20.00.

Commencement date - Wednesday, September 8
Wednesday, January 5, 1983

XPET-018 BASIC NATURAL GAS 20 Weeks
PROCESSING

Prerequisite: None Tuesday, 7 - 10 p.m.

Fee: \$113.00

This is a comprehensive course designed to assist those contemplating entering the natural gas industry and personnel already engaged as gas plant operators. Gas field operators will also find it beneficial in improving their ability on the job.

The course consists of:

Gas Field Operations: Explorations and drilling methods. Well production techniques. Composition and properties of Natural gas. Gas gathering and field equipment.

Gas Plant Operations: Safety in gas plants. Inlet Separation systems. Gas Sweetening. Sulphur recovery. Dehydration methods. Liquid Petroleum Gas and Gasoline recovery systems. Fractionation of Liquid Petroleum Gas. Condensate Stabilization. Product Treating and Storage - Auxiliary Equipment. Utilities and emergency systems.

NOTE: Extensive coverage will be given to the operation, maintenance and trouble shooting of the above subjects together with the theoretical aspects.

Textbook cost approximately \$20.00.

Commencement date - Tuesday, September 7

OFFICE HOURS

August 30, 1982 to March 10, 1983

Monday to Thursday - 8:00 a.m. to 8:00 p.m.

Friday - 8:00 a.m. to 4:30 p.m.

December 16, 1982 to January 3, 1983

March 14, 1983 to August 29, 1983

Monday to Friday - 8:00 a.m. to 4:30 p.m.

REGISTRATION FOR THE ABOVE COURSES

FALL - June 1, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.

WINTER - November 1, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.

Check for registration location in your area.

STRUCTURES DEPARTMENT

NOTE: Special courses will be offered by the Structures Department on request, provided a minimum attendance is assured. Some shop courses will be held at SAIT 2, 19 Street and Centre Avenue S.E.

CIVIL ENGINEERING TECHNOLOGY SUBJECTS

Students who wish to complete their requirements for a Diploma in Civil Engineering Technology will find a selection of credit courses available. Before making application they should consult with the Head of the Structures Department.

ALBERTA SOCIETY OF ENGINEERING TECHNOLOGY UPGRADING COURSES

Many of the credit courses offered are acceptable for upgrading in the Alberta Society of Engineering Technologists.

Society members wishing to upgrade themselves should apply to the Registrar of the Society to obtain a list of their requirements. Anyone interested in becoming certified within the Society should contact the Society's Registrar.

The Registrar,
Alberta Society of Engineering Technologists
240 One Thornton Place
Edmonton, Alberta T5J 2E7

CIVIL ENGINEERING TECHNOLOGY CREDIT COURSES

XCVT-245 SOILS & FOUNDATION 24 Weeks

Prerequisite: None Wednesday, 7 - 10 p.m.

Fee: \$167.00

An introductory course, consisting of lectures and laboratory work in soil mechanics, which would be useful to materials testing technicians, jobsite and highway inspectors and those involved in designing and detailing of foundation structures. Classification and description of soils, field sampling, laboratory testing of specific gravity, Atterberg limits, grain size analysis and compaction types and application of foundations.

Textbook costs approximately \$20.00.

Commencement date - Wednesday, September 15

XCVT-246 CONCRETE TECHNOLOGY 16 Weeks

Prerequisite: None Tuesday, 7 - 10 p.m.

Fee: \$113.00

This course provides the basic concepts in concrete technology. Cement-types, chemistry, manufacturing and testing. Concrete - mix design, concrete properties and testing.

Textbook costs approximately \$12.00.

Commencement date - Tuesday, September 7, 1983

XCVT-042

Prerequisite: None

PRESTATICS

2 Weeks

Monday and Thursday, 7 - 10 p.m.

Fee: \$27.00

This course will prepare those students lacking basic trigonometry and algebra for the Structural Statics, Strength of Materials and Design courses. It will also serve as a refresher course for those who have been away from mathematics for some time.

Topics covered include equations, trigonometric relationships, sine law, cosine law.

NOTE: Students taking prestatics should also confirm registration for Structural Statics.

Commencement date - Monday, September 13

XCVT-142 STRUCTURAL STATICS 8 Weeks

Prerequisite: Some knowledge in trigonometry or XCVT-042 Monday and Thursday, 7 - 10 p.m.

Fee: \$113.00

This is part one of a three part lecture and problem solving course in engineering mechanics which is intended to provide the student with a suitable background for entry into the structural design courses.

Forces and couples, resultants, components, equilibrium and free body diagrams, coplanar, non-coplanar, parallel, concurrent and non-current force systems, graphical solutions.

Textbook and supplies cost approximately \$18.00.

Commencement date - Monday, September 27

XCVT-242 STRENGTH OF MATERIALS I 8 Weeks

Prerequisite: None Monday and Thursday, 7 - 10 p.m.

Fee: \$113.00

This is part two of a three part lab, lecture and problem solving course in engineering mechanics.

Direct stresses, Hooke's law, stresses in bolts and welds, torsion, centroids and moments of inertia.

Textbook: Same as XCVT-142.

Commencement date - Monday, January 10, 1983

XCVT-342 STRENGTH OF MATERIALS II 8 Weeks

Prerequisite: XCVT-242 Monday and Thursday, 7 - 10 p.m.

Fee: \$113.00

This is part three of a three part lab, lecture and problem solving courses in engineering mechanics.

Shear force, bending moments, stresses, deflection and design of beams, stresses, buckling and design of columns.

Textbook: Same as XCVT-142.

Commencement date - Monday, March 14, 1983

REGISTRATION FOR THE ABOVE COURSES

FALL - June 1, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.

WINTER - November 1, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.

Check for registration location in your area.

XCVT-662 STRUCTURAL DESIGN 20 Weeks
WOOD

Prerequisite: XCVT-142, 242, 342 Monday, 7 - 10 p.m.
or approval of Dept. Coordinator

Fee: \$140.00

A practical course intended to assist those who are concerned with the design of timber members and structures.

Properties of wood, analysis, design and detailing of wood members, i.e. beams, columns, trusses, arches and concrete formwork.

Textbook and supplies cost approximately \$15.00.

Commencement date - Monday, September 13

XCVT-442 STRUCTURE DESIGN 24 Weeks
STEEL

Prerequisite: XCVT-142, 242, 342 Tuesday, 7 - 10 p.m.
or approval of Dept. Coordinator

Fee: \$167.00

A practical course intended to assist those who are concerned with the design of steel structures. Analysis, design and detailing of structural steel members, i.e. beams, columns and trusses using bolted and welded connections; plastic design methods.

Textbook and supplies cost approximately \$15.00.

Commencement date - Tuesday, September 14

XCVT-552 STRUCTURAL DESIGN 24 Weeks
REINFORCED CONCRETE

Prerequisite: XCVT-142, 242, 342 Thursday, 7 - 10 p.m.
or approval of Dept. Coordinator

Fee: \$167.00

A practical course intended to assist those who are concerned with the design of reinforced concrete structures.

Analysis, design and detailing reinforced concrete slabs, beams, walls, columns and footings, using ultimate strength and working stress methods.

Textbook and supplies cost approximately \$20.00.

Commencement date - Thursday, September 16

**CONSTRUCTION FOREMAN AND
SUPERVISOR TRAINING**

The aim of this program is to provide practicing construction foremen and construction supervisors with up-to-date management training.

XCVT-660 EFFECTIVE SUPERVISION 12 Weeks
IN CONSTRUCTION

Prerequisite: Experience as tradesman, Tuesday or Thursday,
Foreman or Supervisor directly 7 - 10 p.m.
involved with construction

Fee: \$86.00

The aim of this course is to provide practising construction foremen and construction supervisors with up-to-date management training.

The role of the supervisor, concepts of effective supervision, taking proper action, motivation of the worker, setting goals and

objectives, planning the job, fundamentals of CPM, measuring progress and costs, making job improvements, organizing and planning your time.

Commencement date - Tuesday, September 21
Thursday, January 6, 1983

XCVT-560 CONSTRUCTION 12 Weeks
MANAGEMENT

Prerequisite: Experience as tradesman, Thursday or Tuesday,
Foreman or Supervisor directly 7 - 10 p.m.
involved with construction

Fee: \$86.00

The aim of this course is to provide practising construction foremen and construction supervisors with up-to-date management training.

Items covered including obtaining a contract, what to do prior to signing a contract, bonding jobsite supervision, starting the project, scheduling, subtrades, progress meetings, clean-up, cost control, materials ordering and receiving, progress claims, accounting, taxation, ethics, unions, labor relations, construction changes, correspondence and reports, communications, architects, engineers and inspectors, bankruptcy, finalizing a project, project management and construction management.

Commencement date - Thursday, September 23
Tuesday, January 4, 1983

XCVT-350 ESTIMATING FOR 24 Weeks
BUILDERS I

Prerequisite: Grade X or Tuesday or Wednesday,
knowledge of principles 7 - 10 p.m.
of house construction

Fee: \$167.00

Operation of a construction company, types of estimates, their uses and limitations, reading of drawings and specifications; quantity survey of excavation, foundations, frame construction exterior and interior cladding, site services and site work. Emphasis is on residential dwelling units.

No textbook required.

Commencement date - Tuesday, September 14
Wednesday, September 15

XCVT-450 ESTIMATING FOR 24 Weeks
BUILDERS II

Prerequisite: XCVT-350 or Monday, 7 - 10 p.m.
approval of Dept. Coordinator

Fee: \$167.00

At the completion of this course the student will be able to:

Prepare an accurate list of quantities of materials for a heavy construction project from a given set of plans and specifications. Complete an estimate using unit labor and material costs derived from available data. Prepare written or diagrammatic construction schedules.

Estimating quantities for: concrete, reinforced concrete, structural steel, masonry, interior claddings. Unit costs analysis, cost control, sub-trade analysis, arrow network - planning - calculations and updating.

Applicants should have a good knowledge of general construction practices and a minimum of five years in the building industry.

Commencement date - Monday, September 13

REGISTRATION FOR THE ABOVE COURSES

FALL - June 1, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
WINTER - November 1, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

NON-CREDIT COURSES

XSET-001 SOLAR SYSTEMS DESIGN 12 Weeks

Prerequisite: Knowledge of residential carpentry

Wednesday, 7 - 9 p.m.
Fee: \$65.00

Principles and cost effectiveness of active and passive solar designs for Canadian climates. Topics to be discussed are solar home orientation, design considerations and construction techniques with emphasis on construction of passive solar systems (direct gain, thermo mass and attached sun trap system).

Commencement date - Wednesday, September 15

XSET-021 CONTRACTING YOUR OWN HOME 12 Weeks

Prerequisite: None

Tuesday, 7 - 10 p.m.
Fee: \$59.00

This course will provide students with the knowledge to build their own home using subcontractors and some of their own labour. Topics will include site-selection, building codes, preparation of drawings, building permits, costing and estimating, financing, hiring and administering sub-trades and some shop sessions covering items of work which can be done by the student to save money.

Commencement date - Tuesday, September 14
Tuesday, January 11, 1983

XSET-005 PRICING CONSTRUCTION ESTIMATES 12 Weeks

Prerequisite: XCVT-350 or XCVT-450 or extensive experience in estimating

Tuesday, 7 - 10 p.m.
Fee: \$59.00

This course is designed to enable students to price a general contractor's estimate.

Topics include: computation of laborer unit rates from historical records of costs, from textbook man hour rates and by detailed analysis of the item of work; equipment unit prices using various methods; site and office overhead costs; profit, and the effect of the metric system as it relates to pricing.

Commencement date - Tuesday, September 14

XSET-012 EXPLOSIVE ACTUATED TOOLS 2 Days

Prerequisite: None

Thursday, 7 - 10 p.m.
Fee: \$26.00

This course provides instruction in the safe use, care and maintenance of high and low velocity explosive actuated tools. Lectures cover types of tools, fasteners, charges and safety codes. Firing procedures are demonstrated. Transcripts are issued to successful candidates.

Each class is limited to 10 students.

Classes will be arranged as soon as sufficient applicants register. Students will then be notified by mail of the first class night.

XSET-011 CABINET MAKING I 24 Weeks or 12 Weeks

Prerequisite: None

Monday or Thursday, 7 - 10 p.m.
or Monday and Thursday, 7 - 10 p.m.
Fee: \$185.00

This course provides the student with a basic knowledge of principles and methods of woodworking. Instruction is provided on the proper use and care of hand tools and woodworking machines with the emphasis on safety. Instruction will cover basic joints, drawer construction, use of laminates, layout and drawing.

NOTE: Classes will be limited to 15 students.

Courses are held at SAIT Campus or SAIT 2.

Commencement date - (24 Week Course)
Monday, September 13
Thursday, September 16 (SAIT 2)
(12 Week Course)
Monday, September 13
Monday, September 13 (SAIT 2)
Monday, January 10, 1983 (SAIT 2)
Monday, January 10, 1983

XSET-021 CABINET MAKING II 12 Weeks

Prerequisite: XSET-011

Tuesday and Wednesday,
7 - 10 p.m.
Fee: \$185.00

This course deals with more advanced cabinet work and furniture making. Emphasis is placed on the safe use and care of tools, on the use of jigs and accessories, as well as special operations possible with the various woodworking machines.

Each student will initially be making a small hardwood cabinet and later, their own project. Part of each evening will be used for short lessons and demonstrations.

NOTE: Class limited to 15 students.

Commencement date - Tuesday, September 7
Tuesday, January 11, 1983
Tuesday, January 11, 1983 (SAIT 2)

XSET-055 CABINET MAKING III 12 Weeks

Prerequisite: XSET-021

Thursday, 7 - 10 p.m.
Fee: \$95.00

Each student will initially build a small hardwood project and later will be able to build their own project under the guidance of an instructor. Projects must be approved by the instructor.

NOTE: Class limited to 15 students.

No student will be admitted to this course more than 2 years in succession.

Commencement date - Thursday, September 9
Thursday, January 6, 1983

XSET-019 CABIN BUILDING FOR BEGINNERS 9 Weeks

Prerequisite: None

Thursday, 7 - 10 p.m.
and Saturday, 8:00 - 1:30 p.m.
Fee: \$185.00

This subject covers the following types of cabins:

Conventional, pre-fab, post and beam, arch rib, rigid frame, from choosing a building site to completion of the cabin.

Classes are combined lecture and laboratory.

Commencement date - Thursday, March 31, 1983

REGISTRATION FOR THE ABOVE COURSES

FALL - June 1, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
WINTER - November 1, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

XSET-020 BASEMENT DEVELOPMENT 6 Weeks

Prerequisite: None

Tuesday, 7 - 10 p.m.

Fee: \$37.00

This is a lecture course with discussion periods. This course is to assist those who wish to make modifications to their house basements and will cover rumpus rooms, utility rooms, bedrooms, etc.

Included will be: designing basement space for utility; city bylaws, permits and inspections; framing problems and their solution; application of wall, ceiling and flooring materials; finishing work, installation of doors, trim, shelves; painting finishes and their relative advantages; material purchasing; indications of a good tradesman.

Commencement date - Tuesday, September 14
Tuesday, January 4, 1983

XSET-026 FURNITURE FINISHING 12 Weeks

Prerequisite: None

Tuesday, 7 - 10 p.m.

Fee: \$113.00

A course intended for those who are interested in homecraft furniture finishing. Both theoretical and practical aspects will be included with emphasis on the practical. Students will be required to prepare and apply a variety of finishes on a number of wood samples.

The following topics are included: wood characteristics, surface preparation, finishing equipment, stains, filters, sealers, clear and opaque finishes, rubbing and polishing clear and opaque finishes.

NOTE: This class will be limited to 12 students.

Equipment: Shop apron and a pair of rubber gloves.

Commencement date - Tuesday, September 14
Tuesday, January 11, 1983

XSET-016 FURNITURE REFINISHING 12 Weeks

Prerequisite: None

Wednesday, 7 - 10 p.m.

Fee: \$113.00

A course intended for those who are interested in homecraft furniture repairing and refinishing. Both theoretical and practical aspects will be included, with emphasis on the practical. Students will be required to provide one or two small pieces of furniture (instructor approved) suitable for refinishing.

The following topics are included: wood characteristics, types of joints used in furniture, touch-up patching, dismantling furniture, removal of old finish, repairing furniture, reassembling furniture, surface preparation, application of typical finishing materials, rubbing and polishing.

NOTE: This class will be limited to 12 students.

Major repair work is not a part of this course. However, some minor repairs may be undertaken but the cost of material must be charged to each student.

Equipment: Shop apron and a pair of rubber gloves.

Commencement date - Wednesday, September 8
Wednesday, January 12, 1983

XSET-029 ADD-A-ROOM CONSTRUCTION 12 Weeks

Prerequisite: None

Wednesday, 7 - 10 p.m.

Fee: \$86.00

A special course tailored for homeowners contemplating an addition to their home. The object of the course is to familiarize homeowners with basic techniques in design and construction practices so they can construct the addition or design the plans

and act as their own general contractor. The course consists of lectures, drawing plans, slide presentations, calculation of material sizes and some estimating.

Text: Canadian Wood Frame House Construction.

Commencement date - Wednesday, September 22
Wednesday, January 5, 1983

XSET-030 CARPENTRY FOR THE HANDYMAN - BASIC 5 Weeks

Prerequisite: None

Monday and Wednesday,
or Tuesday and Thursday
7 - 10 p.m.

Fee: \$80.00

The course is designed to acquaint the handyman with the various tools and methods involved in basic maintenance and project building as found in the home.

The course will consist of shop demonstrations and student built practical projects such as: whetstone boxes, picture frames, tool box, lawn furniture, finishing stool or other instructor approved projects.

Commencement date - Monday, September 20 (SAIT 2)
Tuesday, September 21 (SAIT 2)

XSET-031 CARPENTRY FOR THE HANDYMAN - FRAMING 5 Weeks

Prerequisite: None

Monday and Wednesday,
or Tuesday and Thursday
7 - 10 p.m.

Fee: \$80.00

A basic course concerning itself with the fundamentals of framing such as small sheds, garages, small additions to buildings, etc. This course consists of lectures and shop projects covering the areas of floor framing, wall framing, roof framing and weather-proofing.

Commencement date - Monday, November 1 (SAIT 2)
Tuesday, November 2 (SAIT 2)

XSET-032 CARPENTRY FOR THE HANDYMAN - FINISH 5 Weeks

Prerequisite: None

Monday and Wednesday,
or Tuesday and Thursday
7 - 10 p.m.

Fee: \$80.00

The course is designed to introduce the handyman to the various techniques and methods involved in finish carpentry as found around the average home.

The course consists of shop demonstrations, lectures and student projects such as door hanging, casing, wall panelling, tile application, baseboards, etc.

Commencement date - Monday, January 10, 1983 (SAIT 2)
Tuesday, January 11, 1983 (SAIT 2)

XSET-045 CONCRETE INSPECTION 6 Weeks

Prerequisite: XCVT-246 or

Working in Industry

Tuesdays, 7 - 10 p.m.

Fee: \$46.00

This course is intended for those working in the field of construction industry concrete inspection. It will cover evaluation of test data, statistical product control, inspection reports, inspection of batching facilities and methods, transporting, placing and curing concrete.

Commencement date - Tuesday, January 11, 1983

REGISTRATION FOR THE ABOVE COURSES

FALL - June 1, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
WINTER - November 1, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
Check for registration location in your area.

XSET-046**CONCRETE
TECHNOLOGY II****6 Weeks**

Prerequisite: XSET-045

Thursday, 7 - 10 p.m.

Fee: \$46.00

This course is intended to provide an opportunity for practicing concrete technologists to work in a laboratory producing concrete mixes with a variety of admixtures. If time permits special topics of interest to the class will be covered.

Commencement date - Thursday, January 13, 1983

1. Barbecue construction
2. Arch construction
3. Brick and block fence construction
4. Demonstrations of brick slice feature walls and various types of stonework

Commencement date - Saturday, October 16 (SAIT 2)
 Saturday, November 20 (SAIT 2)
 Saturday, February 26, 1983 (SAIT 2)
 Saturday, March 26, 1983 (SAIT 2)
 Saturday, May 7, 1983 (SAIT 2)

XSET-047**CRITICAL PATH
METHODS****16 Weeks**

Prerequisite: None

Monday, 7 - 10 p.m.

Fee: \$113.00

The Critical Path Methods of project planning will be of interest to technicians, technologists and others, especially those involved in estimating, planning, scheduling, inspection and administering construction projects.

On completion of this course the student will be able to construct critical path diagrams, identify the critical path and determine slack times on non critical activities. Bar charts and time activity diagrams will be constructed and the students will be able to optimise a project by crashing to the lowest total cost. The use of computers for network calculations and updating will be discussed.

Commencement date - Monday, January 10, 1983

XSET-161**WALLCOVERING
FOR THE HOMEOWNER****3 Weeks**

Prerequisite: None

Tuesday, 7 - 10 p.m.

Fee: \$25.00

A short course to provide the homeowner with a basic knowledge of hanging wall coverings. There will be both theoretical and practical sessions on the hanging of wallpaper on ceilings, in bathrooms, around windows and doors and on internal and external angles.

Students must bring a metric measuring tape.

Commencement date - Tuesday, September 14 (SAIT 2)
 Tuesday, November 16 (SAIT 2)
 Tuesday, January 11, 1983 (SAIT 2)
 Tuesday, March 15, 1983 (SAIT 2)

XSET-156**BRICKLAYING FOR
THE HOME OWNER
(Level I)****2 Days**

Prerequisite: None

Saturday and Sunday,
8 a.m. - 5 p.m.

Fee: \$41.00

A practical course designed for the home owner. Areas of instruction will include preparation of mortar, use and care of tools and practice of laying bricks and blocks. Upon completion of this course the student should be able to select masonry materials, layout and build small home projects, such as planters and feature walls. Fireplace construction will not be covered in this class.

Commencement date - Saturday, September 18 (SAIT 2)
 Saturday, October 23 (SAIT 2)
 Saturday, November 27 (SAIT 2)
 Saturday, March 12, 1983 (SAIT 2)
 Saturday, April 2, 1983 (SAIT 2)
 Saturday, April 23, 1983 (SAIT 2)
 Saturday, May 14, 1983 (SAIT 2)

XSET-157**BRICKLAYING FOR
THE HOME OWNER
(Level II)****2 Days**Prerequisite: Bricklaying for the
Home Owner (Level I)Saturday and Sunday
8 a.m. - 5 p.m.

Fee: \$41.00

This course is designed to reinforce previous instruction and to give the student the opportunity to increase his/her proficiency. The majority of the course is spent in shop demonstrations and practise. Student project will include construction of the following items:

Prerequisite: None

Tuesday, 7 - 9 p.m.

Fee: \$32.00

This course is aimed at the private homeowner who is thinking of building his own retaining walls, rather than employing a private contractor. It involves a description of some of the approaches which can be used and predominately emphasizes methods, not engineering theory.

The course will cover the following areas: terminology, forces on walls, City of Calgary regulations, step-by-step procedures for reinforced concrete, reinforced masonry block, brick, vertical posts, railway ties, rubble stone, concrete cores, fracture and 'f' stone walls. Wall openings, steps, drainage, backfill and finishing are also discussed along with costing of the various methods.

Instruction will be from a homeowner (engineer) who has built his own retaining walls and from a private contractor who has built a considerable number.

Commencement date - Tuesday, September 7
 Tuesday, January 4, 1983

OFFICE HOURS

August 30, 1982 to March 10, 1983
 Monday to Thursday - 8:00 a.m. to 8:00 p.m.
 Friday - 8:00 a.m. to 4:30 p.m.
 December 16, 1982 to January 3, 1983
 March 14, 1983 to August 29, 1983
 Monday to Friday - 8:00 a.m. to 4:30 p.m.

REGISTRATION FOR THE ABOVE COURSES

FALL - June 1, 1982 - 9:00 a.m. to 4:00 p.m. - resumes June 7, 1982 - 8:00 a.m. to 4:30 p.m. until courses fill.
 WINTER - November 1, 1982 - 9:00 a.m. to 8:00 p.m. - resumes November 5, 1982 - 8:00 a.m. to 8:00 p.m. until courses fill.
 Check for registration location in your area.

ALBERTA SOCIETY OF ENGINEERING TECHNOLOGISTS

SYLLABUS OF COURSES

Foreword. The Northern Alberta Institute of Technology in co-operation with the Southern Alberta Institute of Technology and the Alberta Society of Engineering Technologists, is prepared to offer courses of study for the purpose of upgrading members of the society.

GENERAL REQUIREMENTS FOR REGISTRATION AS A MEMBER OF A.S.E.T.

The Society has two grades of membership in which its members may be certified.

1. Engineering Technician
2. Engineering Technologist

The qualifications for each grade are as follows:

TECHNICIAN

- a) High School Diploma with Grade XII Math and Science or equivalent and
- b) One year of technical education at an accredited Institute of Technology or equivalent and
- c) Minimum of four years of approved technical experience and
- d) Letters of reference.

TECHNOLOGIST

- a) Minimum of two years at an accredited Institute of Technology leading to a Diploma of Technology or equivalent and
- b) Minimum of two years of approved technical experience after graduation from an accredited Institute of Technology or equivalent and
- c) Letters of reference
- d) A technical report when required.

FOREIGN QUALIFICATIONS

Foreign academic qualifications will be subject to review and assessment by Panels of Examiners and the Certification Board. Those applicants with practical experience in a country other than Canada, must have at least one full year of Canadian experience in the applicable field of technology.

The syllabus for upgrading is divided between Academic and Technical subjects. Requirements for advancement will be specified by the Society on an individual basis.

EXAMINATIONS AND CREDIT

The Society will accept credits earned by a member who has successfully completed Institute courses as listed in the calendar.

In addition, the member can enroll in any Institute course which will prepare him to write an examination set by the Society and secure credit for advancement in this manner.

The Society currently lists the following field of technology:

Aeronautical	Electronics
Agricultural	Forestry
Air Conditioning and Refrigeration	Gas
Architectural	Hydrocarbon
Avionics	Industrial Engineering
Chemical	Instrumentation
Civil	Materials
Coal Resources	Mechanical
Communications	Metallurgical
Construction	Mining
Corrosion	Petroleum
Drafting	Power Plant
Electrical	Structural
	Survey

COURSES OF STUDY FOR ADVANCEMENT TO A HIGHER GRADE OF CERTIFICATION

Society members wishing to upgrade themselves should apply to the Registrar of the Society for a detailed course of study. The Society's Certification Board and Panels of Examiners will review the application and detail those subjects required for upgrading.

Those interested in Certification should contact the Registrar for further information.

The Registrar
Alberta Society of Engineering Technologists
240 One Thornton Court
Edmonton, Alberta
T5J 2E7
Telephone 425-0626

MATHEMATICS REQUIREMENTS FOR ADVANCEMENT

NOTE:

1. Courses listed for Technician and Technologist must all be completed for certification in that category.
2. Math 30, 32, 33 or 36 are equivalent to X30M.

ASSOCIATION OF PROFESSIONAL ENGINEERS, GEOLOGISTS AND GEOPHYSICISTS OF ALBERTA

Courses, offered in cooperation with the Association of Professional Engineers, Geologists and Geophysicists of Alberta, and designed to assist candidates in preparing for the Professional Examinations leading to registration with A.P.E.G.G.A.

Students interested in obtaining registration as Professional Engineers should write:

The Registrar
APEGGA
215 One Thornton Court
Edmonton, Alberta
T5J 2E7
or
Telephone: (403)426-3990

ELIGIBILITY TO WRITE PROFESSIONAL EXAMINATIONS MAY ONLY BE ESTABLISHED THROUGH THE ACCEPTANCE OF AN APPLICATION FOR MEMBERSHIP IN THE ASSOCIATION. This will result in assignment of specific examination subjects. The examinations are held semi-annually (spring and fall) at the University of Alberta Campus.

The Institute offers evening classes only for those courses in which sufficient student interest is shown. If a group of students wish a course to be organized for one of the Professional subjects they may make special application to the Director Of Continuing Education, Southern Alberta Institute of Technology, setting forth their request. If a sufficient instructor can be obtained, the course will be organized.

**SOUTHERN ALBERTA INSTITUTE OF TECHNOLOGY
ALBERTA SOCIETY OF ENGINEERING TECHNOLOGISTS
MATHEMATICS REQUIREMENTS FOR ADVANCEMENT**

TECHNOLOGY	TECHNICIAN	TECHNOLOGIST
AERONAUTICAL ENGINEERING	XTRIG-002 XGEOM-002	XCALC-002 XCALC-003
AIR CONDITIONING ENGINEERING	XALG-002 XTRIG-002	XCALC-001 XGEOM-002
CHEMICAL ENGINEERING	XTRIG-002 XGEOM-002 XCALC-001	XCALC-003 XCALC-004 XMATH-981
CHEMICAL	XCALC-001	
CIVIL	XTRIG-001 XALG-001	XGEOM-002 XCALC-001
COMPUTER	XTRIG-002 XGEOM-002 XCALC-002 XSTAT-001	XMATH-661 XCALC-003 XSTAT-002 XCALC-004
ELECTRICAL ENGINEERING	XALG-002 XGEOM-002	XCALC-002 XCALC-003
ELECTRONICS ENGINEERING	XALG-002 XTRIG-002	XCALC-002 XCALC-003
ENGINEERING GRAPHICS	XALG-001 XTRIG-001	XGEOM-002 XCALC-001
ENGINEERING SCIENCE	XTRIG-002 XGEOM-002 XSTAT-001	XCALC-002 XCALC-003 XMATH-661 XSTAT-002
INDUSTRIAL ENGINEERING	XALG-002 XGEOM-002	XCALC-002 XMATH-981
INDUSTRIAL INSTRUMENTATION	XALG-002 XTRIG-002	XCALC-002 XCALC-003
MECHANICAL ENGINEERING	XTRIG-002 XGEOM-002	XCALC-002 XCALC-003
POWER ENGINEERING	XTRIG-002 XGEOM-002	XCALC-002 XCALC-003
PETROLEUM ENGINEERING	XTRIG-002 XGEOM-002	XCALC-002 XCALC-003
SURVEYING	XTRIG-002 XGEOM-002 XCALC-002	XMATH-661 XCALC-003

**NORTHERN ALBERTA INSTITUTE OF TECHNOLOGY
ALBERTA SOCIETY OF ENGINEERING TECHNOLOGISTS
MATHEMATICS REQUIREMENTS FOR ADVANCEMENT**

TECHNOLOGY	TECHNICIAN	TECHNOLOGIST
AIR CONDITIONING & REFRIGERATION	X2030M X4050M	X41M and X51M
AERONAUTICAL	X2030M, X4050M	X60M, X70M
AGRICULTURAL	X2030M, X4050M	X60M, X70M
ARCHITECTURAL	X2030M, X4050M	
BUILDING CONSTRUCTION	X2030M, X4050M	
CHEMICAL (NON RESEARCH)	X2030M, X4050M	X52M, X41M
CIVIL	X4050M, X52M	
COAL RESOURCES "MINING"	X2030M, X4050M, X41M	X60M, X70M, X52M
CORROSION	X2030M, X4050M	X41M
ENGINEERING DESIGN & DRAFTING	X2030M, X4050M	X52M, X41M
EARTH RESOURCES	X2030M, X4050M	X60M, X70M, X52M
ELECTRICAL	X2030M, X4050M	X60m, X70M
ELECTRONICS	X2030M, X4050M	X60M, X70M
GAS (HYDROCARBON)	X2030M, X4050M, X60M	X41M, X52M
HEAVY DUTY EQUIPMENT *INDUSTRIAL PRODUCTION	X2030M, X4050M	X60M, X70M
(MECHANICAL INDUSTRIAL)	X2030M, X4050M	X41M, X52M, X70M, X60M
INSTRUMENTATION	X2030M, X4050M	X51M, X60M, X70M, X41M
MATERIALS	X2030M, X4050M	X41M, X60M
PETROLEUM	X2030M, X4050M	X60M, X70M
*PLASTICS	X2030M, X4050M	X60M, X41M, X70M
POWER PLANT	X2030M, X4050M	X60M, X70M
STEEL DETAILING	X2030M, X4050M	X60M
STRUCTURAL	X2030M, X4050M	X52M, X60M
SURVEY	X2030M, X4050M	X60M, X70M, X51M
TELECOMMUNICATIONS	X2030M, X4050M	X60M, X70M, X52M

*As the content of X60M is only partly covered in the daytime program it is necessary to include it in the upgrading sequence.

CORRESPONDENCE COURSES

AVAILABLE AT S.A.I.T.

Fireman's Course
Dietary Aide Training
Refresher for Graduate Dieticians
Surface Mine Foreman
Surface Mine Manager
Ophthalmic Assistant
Phase I
Phase II

For information:

Correspondence
Southern Alberta Institute of Technology
1301 - 16 Avenue N.W.
Calgary, Alberta
T2M 0L4
Phone 284-8456

NOTE: Power Engineering correspondence courses are available through the Power Engineering Department, Room M207, Main Building, Ph. 284-8451.

AVAILABLE AT N.A.I.T.

Basic Dental Assisting Independent Study Program
Dental Practice Aspects
Surveying Correspondence Program

For information:

Correspondence
Northern Alberta Institute of Technology
11762 - 106 Street
Edmonton, Alberta
T5G 2R1
Phone 427-9100

BRITISH COLUMBIA INSTITUTE OF TECHNOLOGY

Accounting for Office Managers 1
Accounting for Office Managers 2
Advanced Haematology
Air Photo Interpretation
Algebra 2
Algebra 3

Botany
Bridge Maintenance 1
Calculus 1
Calculus 2
Communications 1
Decision Making
Dendrology
Drainage
Ecology
Fire Management
Food and Beverage Cost Control
Forest Measurements
Forest Soils
Front Office Procedures
Geology and Soils 1
Hospitality Accounting
Hydrology
Logarithms - Complex Numbers - Analytic Geometry
Mathematics
Meteorology
Photo Interpretation
Physics 1
Physics 2
Principles of Administration
Principles of Economics
Purchasing for the Hospital Industry
Range Management
Remedial Mathematics
Silviculture
Survey 1
Surveying
Taxation 1
Technical Mathematics 2
Trigonometry
Wood Technology

Please direct your enquiries to
Directed Study Centre
B.C. Institute of Technology
3700 Willingdon Avenue
Burnaby, B.C. V5H 3H2

ADMINISTRATION

Director of Continuing Education	R.H. Jewison, B.Sc., B.Ed. Telephone 284-8342
Coordinator	W.J. McCormick Telephone 284-8558
Outreach Co-ordinator.	Diane Osberg Telephone 284-8557 Brant Telephone 684-3788
Outreach Classes.	Telephone 284-8342
Office Manager.	Joann Petryga Telephone 284-8534
Correspondence	Yvonne Alway Telephone 284-8456
MAIN INFORMATION NUMBER.	284-8881

GENERAL INFORMATION

Objectives

The evening program is offered with four main objectives in mind:

(a) To assist those who are already engaged in industry with instruction in the technical and theoretical aspects of their work, including current new developments. In some cases, credit in units of the regular day program can be obtained.

(b) To provide sufficient basic instruction to those who wish to change to a new occupation.

(c) To assist those who are aiming for occupational advancement.

(d) To assist those who desire to improve their use of leisure time.

Prerequisites

It is expected that applicants will have a reasonable knowledge of written and spoken English, in addition to any prerequisites specified under the descriptive paragraph pertaining to each course.

Applicants are urged to be sure they possess the necessary prerequisites for the course under consideration. **If false prerequisite information is given, the student will be withdrawn from the course with the normal refund policy in effect.** They should also peruse the course outline carefully to ensure it is the course required. **Where high school prerequisites are specified, a transcript of high school grades must be included with the application.**

Students who are interested in obtaining credit towards a diploma are urged to check the calendar thoroughly for the prerequisites to enter such courses and consult with the Institute in planning their program. It is the responsibility of each applicant to make sure that he or she is

applying for the correct course and can meet the educational and related requirements.

Adult Student Privileges may be granted to applicants over 18 years of age. Prerequisites may be waived but in this event, it must be specifically understood that the onus is placed on the student to maintain the pace of the class.

Hours And Evenings

Course lengths and evenings offered are indicated in the course outline. The evenings listed are subject to change at any time before the course commences, but will be adhered to as far as possible.

Choice Of Evenings

Where a choice of evenings is offered, applicants should specify any preference they may have, but no guarantee is given that the preference will be met. Early applicants are more likely to be allotted a specified evening.

Course Content and Cancellations

The Institute reserves the right to cancel any course in which a minimum required registration is not achieved, and to make any changes in course content or instruction which circumstances may require.

CANCELLATION OF ANY CLASS WILL BE DONE TWO DAYS PRIOR TO COMMENCEMENT OF THE CLASS. STUDENTS WILL BE ADVISED BY TELEPHONE IF A CLASS IS CANCELLED. THIS ONLY APPLIES IF A TELEPHONE NUMBER IS INCLUDED ON THE APPLICATION.

Any student whose ability to profit by a selected course is found to be inadequate,

or whose conduct is not in the best interests of the Institute, may be asked to withdraw at any time. In such cases, no portion of the fees, will be refundable.

Handicapped Persons

If there is a course you would like to take, call 284-8881 to see what arrangements can be made to accommodate you.

Senior Citizens

May take classes free of charge if there are spaces available. Limit of two per class.

Advance Applications 1982-83

Applications for 1982-83 will be received as of JUNE 1, 1982 for the fall session starting in September. This date coincides with the publishing of the calendar. Applications for the winter season starting in January will be received as of NOVEMBER 1, 1982. Fees must be paid in full with the application.

Prospective students are advised to submit applications well in advance of the course commencement date. Applications are accepted in the order received.

All pre-registrants will be advised by mail as to their acceptance or otherwise. THIS IS NOT ALWAYS POSSIBLE WHEN APPLICATIONS ARE RECEIVED LATER THAN ONE WEEK PRIOR TO THE COMMENCEMENT DATES. IN SUCH CASES IT WILL BE ASSUMED THAT THE APPLICANT IS AWARE OF THE PROPER DATE AND TIME.

Continuing Education will not be responsible for the notification of class cancellations for applicants who do not provide telephone numbers.

Fees and Refunds

"Fees are established pursuant to authority in regulations and as such are subject to review and change as required."

The fee for each course is indicated in the course description. **FEE MUST BE PAID WITH THE APPLICATION FORM.** A special service fee of \$10.00 is included in the fee structure. This amount is **non-refundable** and will be withheld from all refunds to cover the cost of processing the registration and withdrawal.

REQUESTS FROM REGISTRANTS WHO WISH TO WITHDRAW FROM A COURSE, MUST BE RECEIVED BY CONTINUING EDUCATION IN WRITING PRIOR TO THE SECOND MEETING OF THE CLASS. REQUESTS FOR REFUNDS RECEIVED AFTER THE SECOND CLASS MEETING WILL NOT BE CONSIDERED. NON-ATTENDANCE DOES NOT CONSTITUTE NOTICE OF WITHDRAWAL, AND UNLESS THE REGISTRANTS MAKE APPLICATION AS OUTLINED, THEY WILL BE RESPONSIBLE FOR THE TOTAL COURSE FEES. AFTER APPROVAL OF REFUND, TWO TO THREE WEEKS SHOULD BE ALLOWED FOR PROCESSING. A \$10.00 SPECIAL SERVICES FEE IS NOT REFUNDABLE IF THE APPLICATION IS ACCEPTED.

SHOULD A COURSE BE CANCELLED, FEES WILL BE REFUNDED IN FULL.

IF THE LENGTH OF A COURSE IS 18 HOURS OR LESS NO REFUND IS AVAILABLE ONCE THE COURSE COMMENCES.

Cheques and Money Orders should be made payable to the Southern Alberta Institute of Technology.

Special Courses

On request other courses can be organized provided we have the facilities and instructors, and a sufficient number of applications are received to make the course feasible.

Should a course be cancelled or not listed in the calendar, by special arrangement it may be possible to complete the subject during the day to enable credit towards a S.A.I.T. Diploma.

Interested groups or individuals requesting these special courses should communicate directly with the Director of Special Projects.

Auditing Courses

A student who has been granted permission to audit a course shall not be eligible to write examinations nor receive credit. This is only possible in theory classes.

Mark Statements

Mark statements are issued to all students at the end of the course.

Income Tax

Income tax receipts are mailed with mark statements at the end of the course. No duplicates will be issued.

Parking

See map on inside cover. A map is also mailed with acceptance letter.

S.A.I.T. Graduates

Any group of S.A.I.T. graduates who wish to arrange for a special post-graduate course or deficiency may do so by contacting Continuing Education at 284-8881.

Learning Resources Centre

All the facilities of S.A.I.T.'s Learning Resources Centre and the Alberta College of Art Library are available to Continuing Education students while their courses are in session and afterwards. Please bring proof of registration to the LRC to obtain a borrower's card. We invite you to use our large collection of books, magazines and audio-visual materials. We are located on the second floor of the Tower (N) block and our phone number is 284-8616. Hours: Monday-Thursday 7:45 a.m. - 10:00 p.m.; Friday 7:45 a.m. - 4:45 p.m.; Saturday 11:00 a.m. - 5 p.m.; and Sunday 1 p.m. - 5 p.m.

ACA hours: Monday - Thursday 8:00 a.m.
- 10:00 p.m.; Friday 8:00 a.m. - 4:45 p.m.;
Saturday 10:00 a.m. - 5:00 p.m.

When classes are not in session: LRC –
Monday - Friday 7:45 a.m. - 4:45 p.m.;
ACA – Monday - Thursday 7:30 a.m. - 5:00
p.m.

Bookstores

S.A.I.T. Book Store and the ACA Book
Store are operated in conjunction and
every registered student has equal rights of
purchase from either outlet.

S.A.I.T. BOOK STORE:

The book store is located on the 4th floor,
Physics Wing of the Tower Complex
(South-west wing). It is a counter-service
operation and carries all prescribed and
optional textbooks recommended by your
department. Available also are professional
items used within individual facilities and
general items such as notebooks, loose-
leaf refills, pens and pencils, etc.

ACA BOOK STORE:

The ACA Book Store is located in the
basement of the College of Art building
adjacent to the Jubilee Auditorium. A com-
prehensive stock of art equipment and
supplies is available, the quality of which
is recommended by staff.

NOTES:

NOTES:

NOTES:

NOTES:

- AERO BUILDING**
- Aircraft Maintenance Engineering shops
 - Mechanical Engineering Department
- ALBERTA COLLEGE OF ART**
- Art Gallery
 - Art Shops and Classrooms

- MAIN BUILDING**
- Canada Manpower
 - Continuing Education
 - Correspondence Department
 - Credit Union
 - General Office
 - Information Services
 - Student Snack Bar
 - Offices of Department Heads and Instructors for:
 - Aeronautical and Mechanical Department
 - Power Engineering Department
 - Registrar's office
 - Student Counselling Service

- "A" BUILDING**
- Book Shop
 - Main Stores and Receiving

- "B" BUILDING**
- Automotive Service Department
 - Offices of Department Head and Instructors for:
 - Structural Engineering Department

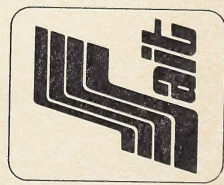
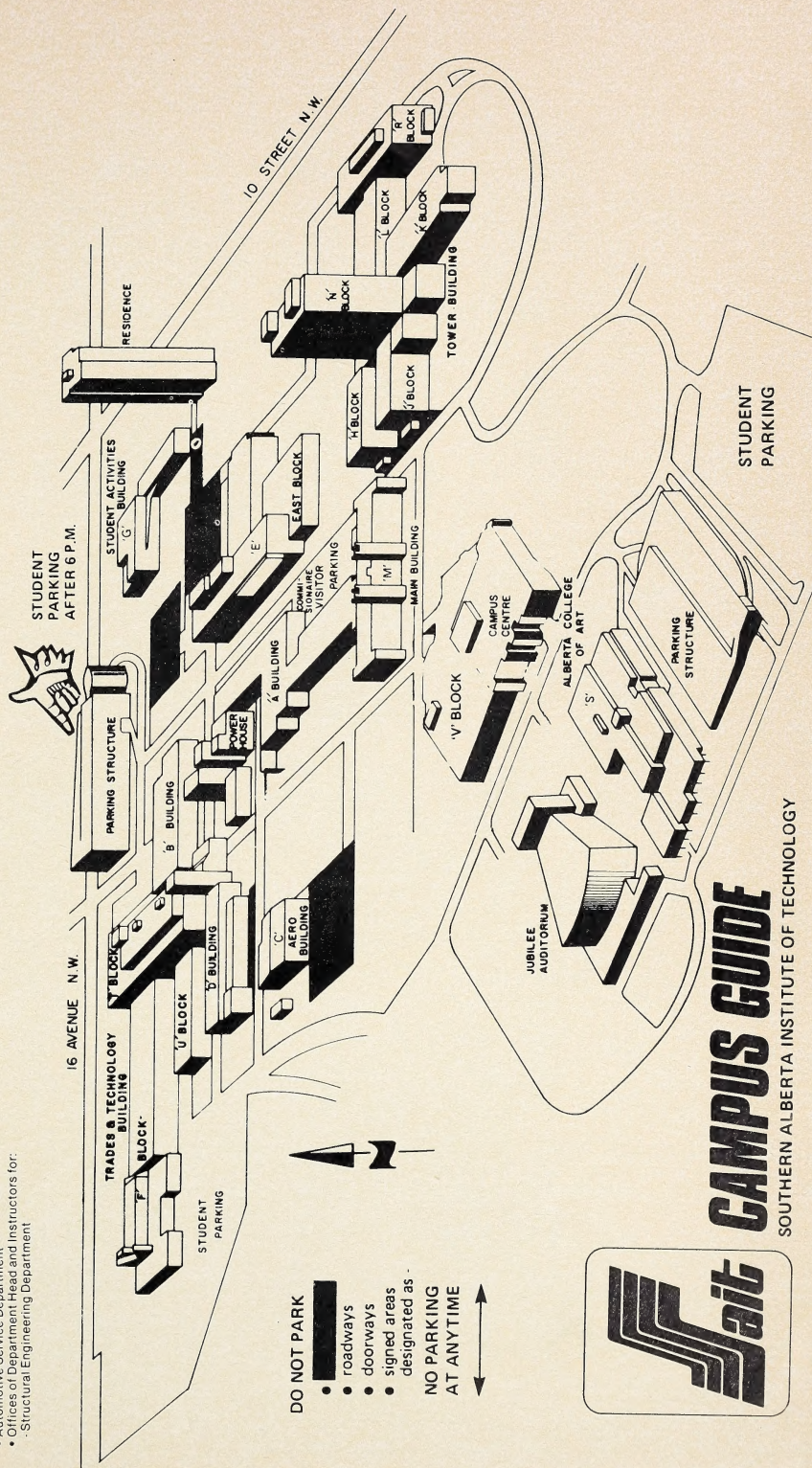
- "D" BUILDING**
- Heavy Duty Mechanics shops
 - Diesel Mechanic shops
 - Power Engineering laboratories

- EAST BLOCK**
- Formal Dining Lounge
 - Electronics laboratories and classrooms
 - Offices of Department Heads and Instructors for:
 - Electronics Department
 - Food Service Department
 - Food Services Receiving Stores
 - Food Services laboratories and classrooms

- TOWER BUILDING**
- Tower — "N" Block**
- Administrative Offices
 - Human Resources Centre
 - Student Centre
 - Offices of Department Heads and Instructors for:
 - Business Education Department
 - Chemistry Department
 - Communication Arts Department
 - Drafting Department
 - Math Physics Department

- Chemistry Wing — "L" Block**
- Chemistry laboratories and classrooms
 - Food Service laboratories
 - Television, Stage and Radio laboratories
- Drafting Wing — "K" Block**
- Drafting Department classrooms
 - Graphic Arts shops
 - Journalism laboratories and classrooms
- Mathematics and Physics Wing — "H" Block**
- Language Laboratory
 - Mathematics and Communication Arts classrooms
- Medical Science Wing — "R" Block**
- Lecture Theatre
 - Medical laboratories and classrooms
 - Nurse and First Aid
 - Offices of Department Head and Instructors for:
 - Medical Science Department
- Physics Wing — "J" Block**
- Bookstore
 - Computer classrooms
 - Data Centre
 - Educational Media Services
 - Physics Laboratories and classrooms

- TRADES AND TECHNOLOGY BUILDINGS**
- "F" Block**
- Automotive shops
 - Welding shops
 - Welding shops and classrooms
 - Petroleum laboratories and classrooms
 - Steel Fabricators shops
- "T" Block**
- Electrical Engineering laboratories and classrooms
 - Offices of Department Heads and Instructors for:
 - Automotive Department
 - Electrical Department
 - Metals Department
 - Petroleum Department
 - Pipe Trades shops
 - Structural Metal shops
 - Student Snack Bar
- "U" Block**
- Automotive shops
- CAMPUS CENTER**
- "V" Block**





Southern Alberta Institute of Technology
1301 16th. Avenue N.W. Calgary Alberta
T2M 0L4